

UNIT 3: AUSTRALIA'S LIVING STANDARDS

AOS 1: An introduction to microeconomics: the market system, resource allocation and government intervention

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1.2 ACTIVITIES

Exercise

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	2	Economics is the study of choices made by people, businesses and government in order to make people better off in terms of their living standards.
2	2	Microeconomics involves looking at the operation of smaller parts (or sectors) of the economy that make up the wider Australian economy. It focuses on individual firms, markets, sectors or industries (for example the car industry or the dairy industry), whereas macroeconomics involves looking at the broader, overall state of the Australian economy: the big picture. Macroeconomics concentrates on areas such as national spending, output, income, employment and overall living standards.
3	7	Economics is the study of choices made by people, businesses and government in order to make people better off in terms of their living standards. a. This is primarily an area of macroeconomic studies because it refers to the broader picture, combining all markets and the overall state of the economy. b. This is primarily an area of macroeconomic studies because it refers to the broader picture, combining all markets and the overall state of the economy. c. This is primarily an area of microeconomic studies because it refers to a smaller part of the economy, specifically pricing in the oil industry.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		d. This is primarily an area of microeconomic studies because it refers to a smaller part of the economy, specifically levels of employment in the sugar industry. e. This is primarily an area of microeconomic studies because it refers to a smaller part of the economy, specifically the farming sector. f. This is primarily an area of macroeconomic studies because it refers to the broader picture, combining all markets and the overall state of the economy. g. This is primarily an area of microeconomic studies because it refers to a smaller part of the economy specifically the food and tourism sectors.

1.3 ACTIVITIES

Exercise

Question #	Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1a	2	Needs are goods and services necessary for survival, whereas wants are goods and services that make life more enjoyable but are not essential to our survival.
1b	2	Needs are goods and services that are necessary for survival, whereas wants are goods and services we would like, but are not essential to our survival. Therefore, wants can be a never-ending list of personal desires.
2a	1	Natural resources — the gifts that nature provides; for example, arable land, rivers, forests, oceans.
2b	1	Labour resources — skilled and unskilled resources that provide physical power, mental talents and other specialised services used in the production process. Labour often refers to the workers within a business. Examples can include a mechanic, architect or shop attendant. Specialised labour can include entrepreneurship, representing management skills or business leadership.
2c	1	Capital resources — the manufactured items often involving physical parts and equipment, such as machinery, factories, computer systems, trucks and, on a broader scale, infrastructure such as power generation, roads and railways.
3	2	Relative scarcity is the concept describing the imbalance between our wants, which are virtually unlimited, and our available resources, which are limited (finite).

4a	5	<table><tr><th>Resource</th><th>Classification</th></tr><tr><td>i. The new NBN cables</td><td>Capital resource. These are human-made goods used in the production process to produce other goods. Telstra exchange and cables can also be called economic infrastructure, which is capital equipment that is used to produce goods and services such as telecommunications, roads and railways.</td></tr><tr><td>ii. A computer at BHP</td><td>Capital resource. Computers are human-made goods used in the production process to produce other goods and services. It can also be classified as economic infrastructure.</td></tr><tr><td>iii. The fertile soils in the Western District of Victoria</td><td>Natural resource. The soil is provided by nature.</td></tr><tr><td>iv, The MCG sports oval and complex</td><td>Capital resource. The MCG is a human-made good used in the production process to produce services such as entertainment.</td></tr><tr><td>v. The school principal</td><td>Labour resource. The school principal could be classified as skilled labour, and as providing mental talents and leadership and management skills. The leadership and management skills could be classified as elements of entrepreneurship.</td></tr><tr><td>vi. Port Phillip Bay</td><td>Natural resource. The seawater is provided by nature.</td></tr></table>	Resource	Classification	i. The new NBN cables	Capital resource. These are human-made goods used in the production process to produce other goods. Telstra exchange and cables can also be called economic infrastructure, which is capital equipment that is used to produce goods and services such as telecommunications, roads and railways.	ii. A computer at BHP	Capital resource. Computers are human-made goods used in the production process to produce other goods and services. It can also be classified as economic infrastructure.	iii. The fertile soils in the Western District of Victoria	Natural resource. The soil is provided by nature.	iv, The MCG sports oval and complex	Capital resource. The MCG is a human-made good used in the production process to produce services such as entertainment.	v. The school principal	Labour resource. The school principal could be classified as skilled labour, and as providing mental talents and leadership and management skills. The leadership and management skills could be classified as elements of entrepreneurship.	vi. Port Phillip Bay	Natural resource. The seawater is provided by nature.
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5b	2	Capital resources are human-made goods used in the production process, while natural resources are those resources that occur in nature. Natural resources include arable land, oceans, minerals and native forests.								
5c	2	Capital resources are human-made goods, such as factories and equipment, that are used in the production process to produce other goods and services. They include new technology that results from research and development. The productive capacity of the economy is the potential or the maximum amount of goods and services the economy could produce if it used all its productive resources to their maximum efficiency. The productive resources of the economy are its natural resources, human resources (labour and entrepreneurship) and capital. The capital resources of the economy are an important influence on a nation's productive capacity because capital resources increase productivity (output per unit). It may mean fewer human resources are needed to produce the same product or service. An increase in productivity results in an increase in GDP per capita, higher per capita incomes and								

		increased living standards, because there is an increased access to goods and services, which improves the material wellbeing of society.
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1.4 ACTIVITIES

Exercise

Question #	Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	2	Society must make choices concerning how to use their (relatively) limited resources as efficiently as possible because relative scarcity means that we cannot have all the goods and services that we want.
2	2	Opportunity cost is the benefit forgone by the decision not to direct resources into the next best alternative. Opportunity cost is a cost that arises because we have limited resources and must make decisions to optimise our productive choices. For example, the decision to buy a packet of chips may mean giving up the purchase of an ice-cream, so the ice-cream is the opportunity cost of that decision. To use another example, the decision to build a hospital may have an opportunity cost of not opening five kindergartens.
3	2	The factors that affect the size of a nation's production possibility frontier include foreign investment, immigration, exploration of natural resources, new technology, improved worker productivity or efficiency, improved labour force skills (the quality and quantity of productive resources) and the building of new infrastructure such as roads, water and telecommunications.
4	2	An efficient allocation of natural, labour and capital resources is where these productive inputs are used to produce particular goods and services that maximise the satisfaction of society's needs and wants. There would be no other use to which resources could be put that would further lift production, so living standards should also be maximised.
5a	1	As a VCE student you can choose to study instead of socialising with your friends. The opportunity cost is the enjoyment you might have gained from the social interaction. At the end of the year you could choose to go on a

		'schoolies' trip to the Gold Coast after your exams. The opportunity cost is the variety of alternative goods or services you could have purchased with the money used on the trip.
5b	1	Your parents may choose to buy a new car. The opportunity cost is the range of goods or services that could have been purchased with the same money. Parents could choose to renovate their home with a new bathroom and kitchen. The opportunity cost would be the alternative uses of the money, such as taking the family on an overseas trip.
5c	1	A mining company such as BHP could choose to invest in a new iron ore mine in an overseas country such as Brazil. The opportunity cost is the best alternative use of the same resources, such as expanding an existing mine in Australia. A decision to automate some mining functions with robotic machinery is another possible choice. The opportunity cost would be the best alternative use of resources, such as the expanding into new areas of mining.
5d	1	The Australian government could choose to give tax cuts to PAYG taxpayers. The opportunity cost is the best alternative use of the money forgone, such as an increase in the JobSeeker payment. Governments also make decisions on how revenue raised is spent. The opportunity cost of the purchase of a fleet of submarines for defence purposes could be the construction of new roads or railways.
6a	2	Allocative efficiency is the desirable situation when resources are used to produce those goods and services that best maximise the overall satisfaction of society's needs and wants. Productive, or technical, efficiency is the use of the lowest cost production methods and minimising wastage of resources in the provision of goods and services.
6b	2	Intertemporal efficiency refers to finding the optimal balance between current consumption by spending income now, and the saving of some of that income to finance investment and potential future consumption. Dynamic efficiency refers to the speed at which resources can be reallocated as needed to meet changing needs and choices of consumers.

7a	2	The productive capacity of an economy represents the potential output of goods and/or services. The economy is producing at the maximum level it is capable of, with its existing resources.															
7b	2	When an economy is producing below its productive capacity, it is being inefficient or wasteful of resources. For instance, not all workers will be employed and so we will have unemployment occurring. As production is below what it could be, we will have fewer goods and services than we could have, which would mean material living standards are not being maximised.															
7c	3	The graph illustrates the Production Possibility Frontier (PPF) for an economy producing wool and cotton. The vertical axis represents the production of wool in thousands of tonnes per year, with a scale from 0 to 40 in increments of 5. The horizontal axis represents the production of cotton in thousands of tonnes per year, with a scale from 0 to 30 in increments of 5. The PPF is a concave curve connecting the following points: <table border="1"> <thead> <tr> <th>Point</th> <th>Production of cotton ('000 tonnes per year)</th> <th>Production of wool ('000 tonnes per year)</th> </tr> </thead> <tbody> <tr> <td>D</td> <td>0</td> <td>35</td> </tr> <tr> <td>C</td> <td>10</td> <td>30</td> </tr> <tr> <td>B</td> <td>20</td> <td>10</td> </tr> <tr> <td>A</td> <td>25</td> <td>0</td> </tr> </tbody> </table> The curve is labeled 'Production possibility frontier'.	Point	Production of cotton ('000 tonnes per year)	Production of wool ('000 tonnes per year)	D	0	35	C	10	30	B	20	10	A	25	0
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7d	2	An efficient allocation of resources occurs when productive inputs are used in such a way as to maximise the satisfaction of society's wants. The country produces wool more efficiently than cotton. Given that the country has a finite amount of resources, it can produce 35 000 tonnes of wool per year if all the resources are allocated to wool, but can produce only 25 000 tonnes of cotton with the same amount of resources. The output per unit of input is greater for wool than it is for cotton.
7e	3	For each decision: i. The opportunity cost of producing 25 000 tonnes of cotton per year is 35 000 tonnes of wool. ii. The opportunity cost of producing 35 000 tonnes of wool per year is 25 000 tonnes of cotton. iii. At production possibility B, the country can produce 20 000 tonnes of cotton per year and 10 000 tonnes of wool per year. At production possibility C, the country can produce 10 000 tonnes of cotton and 30 000 tonnes of wool per year. This means that if the country moves from possibility B to possibility C, it can produce 20 000 tonnes more of wool per year but must give up 10 000 tonnes of cotton per year. The opportunity cost of producing 20 000 tonnes more of wool is 10 000 tonnes of cotton.
8	2	The likely opportunity costs of spending this amount on defence is that fewer resources will be allocated to other areas of government responsibility, such as education, health or infrastructure projects.
9	2	A likely opportunity cost of this decision is the best alternative use of the taxation revenue forgone. This could be investment in new infrastructure such as roads or railways.
10	2	A likely opportunity cost is the best alternative use of this subsidy, such as paying energy companies to invest in renewable electricity generation.

1.5 ACTIVITIES

Exercise

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	2	A market is an institution where buyers and sellers come together for the purpose of exchange and the negotiation of relative prices for particular goods and services. Buyers are consumers or economic agents who demand goods or services. Sellers are firms or economic agents who supply goods and services. The exchange of goods and services is coordinated by the price mechanism, which acts as a signalling and rationing mechanism to guide resources among competing uses to produce the types of goods and services that best satisfy society's needs and wants. The Australian economy is made up of many different markets; for example, product markets, the labour market, financial markets, the property market, and fruit and vegetable markets.
2	2	The market structure relates to the level of competition and how much influence or control an individual firm has over the price of a good or service in a particular market. The range of market structures reflects the level of competition and other features found in each type of market.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		Stronger competition (little market power) MARKET STRUCTURES Weaker competition (much market power) Perfect competition - Many buyers and sellers in the industry (hard to specify an exact number but perhaps hundreds or thousands of firms) selling identical products - Strong competition - Firms are 'price takers' with no market power to set their prices. - No brand names since the product is identical or homogeneous so there are lots of substitutes - Perfect knowledge of market conditions exists - Ease of entry and exit by firms because there are no barriers like high start-up costs or government regulations - Closest but not pure examples: markets for some primary products or rural commodities, the share market and property markets. Monopolistic competition - A moderate number of sellers in the industry (possibly 20 to 40, but cannot say exactly), each selling similar but not identical products to satisfy the same type of want - Quite strong competition - Product or brand name differentiation is important, as is advertising (e.g. style, design, colour, service and image) - Quite good knowledge of market conditions - Moderate ease of entry and exit by new firms because there are few barriers or restrictions. - Good examples: clothing manufacturers, retail trade, furniture and restaurants. Oligopoly - Relatively few (perhaps up to 8 or 10 but cannot say exactly) where large sellers control the industry with some potential for collusion and abuse of market power. Sellers often watch their rivals when setting prices. - Brand and product differentiation are quite important ways of selling, using advertising and the development of a certain image. - Fairly difficult entry and exit for firms due to high start-up costs and the barriers operated by already well-established companies. - Good examples: supermarkets, banks and oil companies. Perfect monopoly - One seller controls the output of the industry and there is no close substitute product. - No competition in pure monopoly markets since there are no rival sellers - Product differentiation is unimportant - Entry and exit are difficult due to high start-up costs and other barriers in the case of natural monopolies (not practical to have many firms selling the product) and well-established companies - The firm is a 'price maker' and has a lot of market power given there are no substitute or rivals to undercut prices. - Closest, but not pure examples: water companies, electricity transmission, the NBN and airport operators.
3a	2	Perfect competition occurs when there are many buyers and sellers in a market, both buyers and sellers have perfect knowledge of market conditions, sellers are all price takers, with limited market power, products are homogeneous and there is ease of entry and exit in the market. On the other hand, monopolistic competition exists when some of these conditions are not met, such as a relatively smaller number of sellers, imperfect knowledge of market conditions on the part of many buyers and sellers, some sellers with greater market power than others to determine

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		prices, product differentiation in terms of colour, design, level of service, and a lesser ease of entry or exit in the market.
3b	2	Oligopoly occurs when there are a relatively small number of sellers in the market, often with considerable price-making power and some potential for collusion, significant brand differentiation as a means of marketing products that are not easily compared with each other, and fairly difficult entry and exit in the marketplace. Pure monopoly occurs when there is only one seller controlling the market, and so there is no competition, the one seller is the price maker, and entry and exit are extremely difficult.
3c	2	A price maker has sufficient market power to influence the prices at which goods and services are sold within that market, while a price taker has very little power and will have to accept price levels determined by others in the market.
3d	2	Homogenous product occurs when competing products are so similar that they can all be used for the same purpose. Product differentiation occurs when particular sellers add features to their products that are not available in competing products, often meaning that they may not be interchangeable in terms of usage by consumers.
3e	2	Ease of entry occurs when a new business can enter the market and compete with existing businesses without prohibitive start-up costs. Barriers to entry can include high start-up costs, licensing and copyright restrictions, government regulations and excessive price-making power by existing sellers.
4a	5	A purely competitive or free market is a theoretical marketplace where buyers and sellers who are price takers compete with each other to set the price of goods and services through competition. It is a market where there is an absence of the restrictions of market power and where the following preconditions exist:

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		• many buyers and sellers who are price takers. No buyer or seller can influence the market price or be a price maker. • strong competition between rival producers • perfect knowledge of market conditions • no product differentiation • ease of entry into and exit from the market; no barriers to entry • all sellers sell an identical product and there is no product differentiation by advertising, design or brand names • consumer sovereignty exists • no government intervention.
4b	2	The price level is normally determined by consumers/buyers (demand) and producers/sellers (supply) negotiating the equilibrium market price for the product, similar to what occurs in an auction for property. In other words, the market mechanism, where the forces of supply and demand interact, determines the price level for a product.
4c	4	A highly competitive market is likely to be more efficient than a monopoly type market because firms in highly competitive markets must allocate their resources efficiently in order to keep their costs down, so as to compete with other firms in their industry. Inefficient resource allocation would lead to greater costs, leading to higher, uncompetitive prices, resulting in a loss of business to competitors. Firms in a monopoly market can set prices at levels that they think the market will bear, knowing that they do not have to compete on price. A monopoly market can be more efficient if the product or service provided is natural monopoly, such as the provision of water and sewerage services to households.
4d	2	Other beneficial effects of competitive markets include lower prices for consumers, meaning that a particular level of income can provide a greater quantity of goods and services, leading to improved living standards. Another benefit is

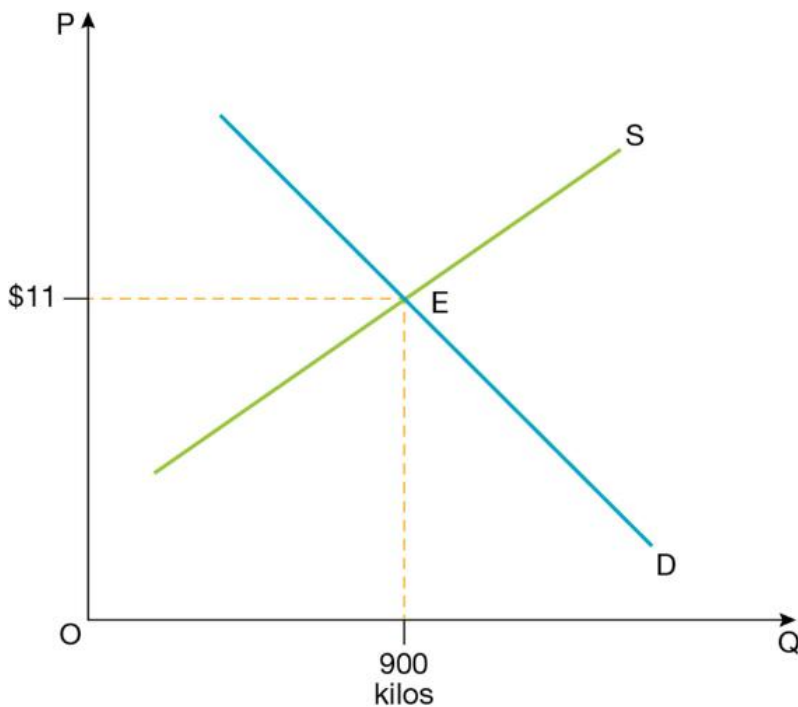
Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		an improvement in the quality of both goods and services delivered by sellers, as consumers have a greater choice of sellers from which to purchase.
4e	4	In Australia, the markets for groceries and banking tend to be oligopolistic whereas the markets for grains and the trading of shares tend to be more competitive. In Australia's groceries and banking markets, there are relatively few sellers who are large, and they control the industries, so there is some potential for collusion and the abuse of market power. Sellers often watch their rivals when setting prices. Attempts are made at product differentiation through advertising and the development of a certain image. Entry and exit for firms is fairly difficult due to high start-up costs and the barriers operated by already well-established companies. In Australia's grains market and share market, there are many buyers and sellers, strong competition, and firms are 'price takers' with little market power to set their prices. There is ease of entry and exit by firms because there are few barriers like high start-up costs or government regulation.
4f	2	The clothing industry in Australia has a considerable degree of differentiated products covering a great range of clothing types, fashions and colours, whereas the market for water or the NBN covers one product only. The product received from the water company or NBN does not vary in character, size, shape or colour. There is no differentiation whatsoever in the product itself, although there may be some variation in the service provided.

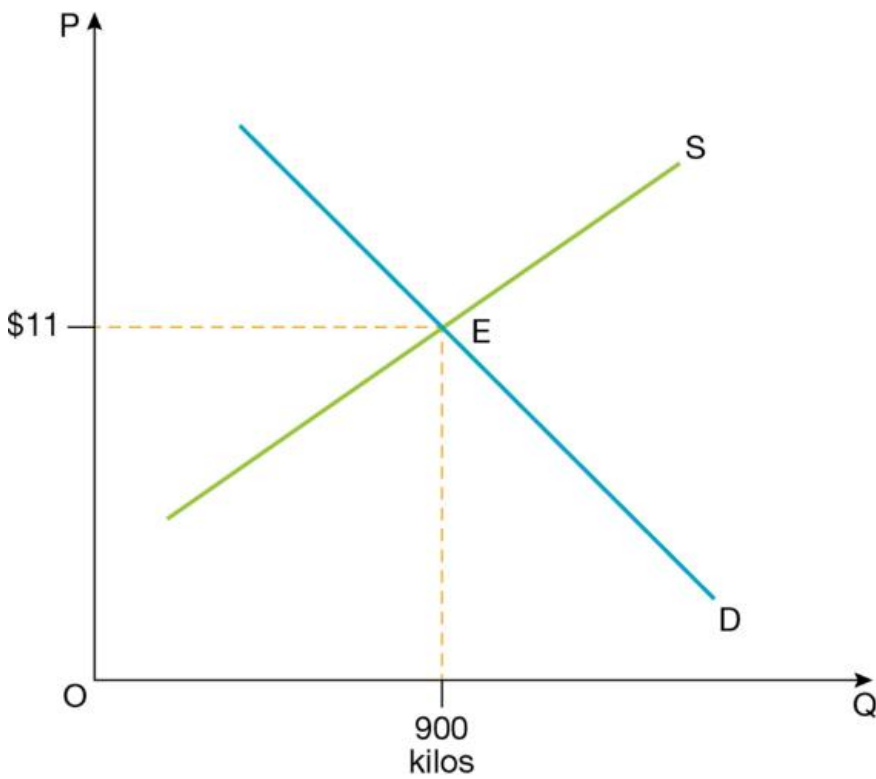
1.6 ACTIVITIES

Exercise

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	2	Demand–supply diagrams convey the relationship between price and quantity from given good (or service) demand and supply schedules. Economists use demand–supply diagrams to show how a market operates for an individual good or service. These diagrams show the behaviour of buyers (demand curve) and sellers (supply curve) in the market. They also show the role of price or the price mechanism in influencing and coordinating the behaviour of buyers and sellers, and as a signalling and rationing mechanism.
2	3	Demand is the quantity of a good or service that consumers are willing to purchase at a particular price, during some specified period of time. The law of demand simply states that as the price of a good rises, the quantity that consumers demand will fall, and as the price falls, the quantity demanded rises. There is an inverse relationship between the price of a good and the quantity demanded.
3	2	Expansion in demand occurs when the price falls and consequently there is a movement downward along the demand curve, representing a greater level of demand for the product. A contraction in demand occurs when there is a price rise and a consequent movement upwards along the demand curve, representing a reduced demand for the product.
4	3	Supply is the quantity of a particular good or service that producers (or firms) are willing to offer for sale at a particular price, during some specified period of time. The law of supply states that there is a direct relationship between the price of a good and the quantity that sellers will put onto the market. As the price rises, the quantity supplied rises; as the price falls, the quantity supplied falls.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
5	2	Expansion in supply occurs when the price rises and consequently there is a movement upward along the supply curve, representing a greater willingness of sellers to supply the product. A contraction in supply occurs when there is a price fall and a consequent movement downwards along the supply curve, representing a reduced willingness of sellers to supply the product.
6	1	The equilibrium price and quantity in the marketplace is determined by both demand and supply. The equilibrium price is the price in the market at which the quantity demanded is equal to the quantity supplied. The equilibrium quantity is the quantity of the good that is both bought and sold at the equilibrium price. At equilibrium, the price will stabilise and the market will be cleared. Both buyers and sellers are satisfied and there will be neither shortage, nor surplus, of the good in the market.
7a	2	The law of demand simply states that as the price of a good rises, the quantity that consumers demand will fall; as the price falls, the quantity demanded rises. There is an inverse relationship between the price of a good and the quantity demanded. The table shows that as the price of coffee beans rises from \$4.00 per kilo to \$16.00 per kilo, the quantity demanded falls.
7b	2	The law of supply states that that as the price of a good rises, the quantity that producers are willing to supply will rise; as the price falls, the quantity supplied falls. There is a direct relationship between the price of a good and the quantity producers are willing to supply. The table shows that as the price of coffee beans rises from \$4.00 per kilo to \$16.00 per kilo, the quantity supplied will rise.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
7c	3	 The graph illustrates a market in equilibrium. The vertical axis is labeled 'P' (Price) and the horizontal axis is labeled 'Q' (Quantity). The origin is marked 'O'. A downward-sloping blue line represents the Demand curve (D), and an upward-sloping green line represents the Supply curve (S). The two curves intersect at point 'E'. Dashed lines from point 'E' indicate the equilibrium price of \$11 on the vertical axis and the equilibrium quantity of 900 kilos on the horizontal axis.
7d	2	At equilibrium, the quantity demanded exactly equals the quantity supplied for a given period of time. There is neither a market glut putting downward pressure on the price, nor a market shortage putting upward pressure on the price.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		
7e	3	At each price, the market for coffee beans will demonstrate the following: At \$4.00 per kilo, demand exceeds supply, so the needs of consumers will not be met. As a consequence the price is likely to rise, bringing more supply into the market until the equilibrium price is attained.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		ii. At \$11.00 per kilo the quantity of coffee beans demanded will match the quantity supplied, at 900 kilos, so this will be the equilibrium price while current market conditions prevail. iii. At \$16.00 per kilo supply would far exceed demand, so sellers would need to lower their prices to clear their surplus stocks. This would move the price towards the equilibrium level.

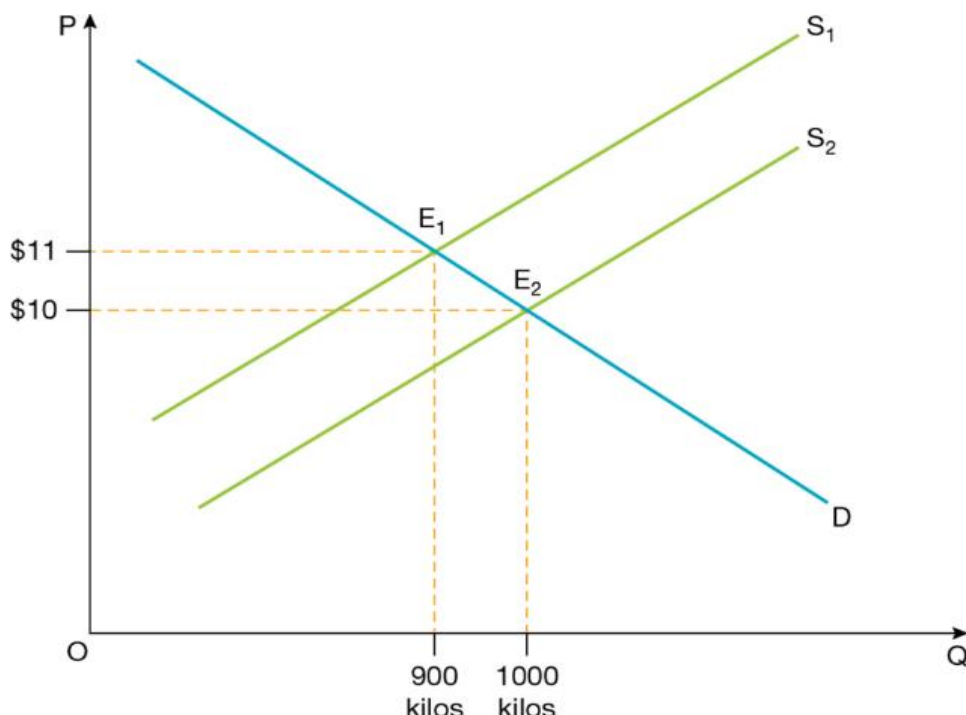
1.7 ACTIVITIES

Exercise

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	2	Non-price demand factors are those factors that might increase or decrease the quantity of a particular good or service that buyers are prepared to demand at a given price, leading to either an increase or a decrease in the demand line on the demand–supply diagram, and a consequent shift in the curve to the right or left.
2	2	Non-price supply factors are those that either increase or decrease the quantity of a particular good or service that sellers are prepared to supply at any given price, leading to a shift in the position of the whole supply line.
3a	2	A movement along the demand line represents an extension or contraction of demand as a result of changes in price. A shift of the demand line represents an increase or decrease in demand at any given price, as a result of non-price demand factors.
3b	2	A movement along the supply line represents an extension or contraction of supply as a result of changes in price. A shift of the supply line represents an increase or decrease in supply at any given price, as a result of non-price supply factors.
4	4	Relative prices are the price level of one good, service or resource compared with that of another good, service or resource. Relative profits are the level of profits in a particular market when compared to those of another market for different goods or services. As relative prices rise within a particular market, this can lead to a rise in relative profits within that market, and as relative prices fall, this can have a similar effect on relative profits for that market. An increase in the relative price of a good or service usually indicates a general shortage or underproduction of a product. A better (higher) price gained relative to the price of other products will usually increase relative profits.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		Higher profits should then encourage profit-seeking owners of resources to allocate more of their natural, labour and capital resources towards this particular area of production. A decrease in the relative price of a good or service usually indicates a general surplus or overproduction of a product. A lower price gained relative to the price of other products will usually decrease relative profits. Lower profits should then discourage profit-seeking owners of resources to allocate less of their natural, labour and capital resources towards this particular area of production.
5	3	The market or price system answers these questions as follows: • <i>What and how much to produce</i>: When the relative price of a particular good or service rises against another good or service, this will lead producers to allocate more resources to the production of that good or service to maximise profits. • <i>How to produce</i>: This is largely determined by the price of resources; for example, when the price of labour resources increases relative to capital resources, production methods will change and become more capital intensive. • <i>For whom to produce</i>: When the relative price of particular goods or services changes against the price of other goods or services, this can change the distribution of income within the economy. For example, individuals selling labour skills that are in short supply will be able to demand higher incomes, changing the relative price of some labour against the price of different skills.
6a	1	The term 'relative prices' simply means the price level for one good or service (e.g. bananas) compared with the price level of another (e.g. pineapples). The price level will reflect the degree of relative scarcity. A very scarce good or service will have a relatively higher price than one that is relatively plentiful.
6b	2	i. The relative price of pineapples has risen against the price of bananas between 2020 and 2022. ii. The relative price of pineapples then fell against the price of bananas between 2022 and 2023.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
6c	2	i. Non-price factors can be either demand factors or supply factors. Possible non-price demand factors accounting for the rise in the relative price of pineapples between 2020 and 2022 could include the publication of research indicating that pineapples have particular health benefits that were previously unrecognised. A possible non-price supply factor could be a catastrophic weather event that has wiped out a number of pineapple farms, and it has taken two years to recover from the disaster. ii. Possible non-price demand factors for the fall in the relative price of pineapples could include a rapid rise in the demand for a substitute fruit, such as watermelon in 2023. A possible non-price supply factor could be favourable weather conditions that have produced a bumper crop in 2023, or more pineapple growers entering the market as a result of the relatively high price.
6d	2	Pineapples are likely to be the most profitable over this period as a higher relative price can result in higher relative profits. This could result in resources being diverted away from banana growing and allocated instead to the growing of pineapples.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
7a	3	 The graph illustrates a rightward shift in the supply curve for coffee beans. The vertical axis represents Price (P) and the horizontal axis represents Quantity (Q). The demand curve (D) is downward-sloping. The initial supply curve (S₁) intersects the demand curve at equilibrium point E₁, which corresponds to a price of \$11 and a quantity of 900 kilos. The new supply curve (S₂) intersects the demand curve at equilibrium point E₂, which corresponds to a price of \$10 and a quantity of 1000 kilos. The shift from S₁ to S₂ results in a lower equilibrium price and a higher equilibrium quantity.
7b	2	There has been an increase in the quantity of coffee beans that sellers are willing to supply at each price. This results in a shift of the supply curve to the right. Non-price supply factors that might have caused this shift could include a reduction in production costs due to improved technology in harvesting the beans, a fall in fuel prices leading to a drop in transport cost in getting the beans to the marketplace, or improved climatic conditions in the growing areas, leading to bumper crops of coffee beans.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
7c	3	The change from E_1 to E_2 happens because there is an oversupply of coffee beans, and the sellers have to lower their price to clear the glut. The market settles at a new lower equilibrium price.
7d	2	The equilibrium market price has fallen from \$11.00 to \$10.00 and the quantity supplied at the new price has risen from 900 kilos to 1000 kilos.
7e	3	This change would probably only have a minor impact on the allocation of scarce resources towards the production of coffee beans as the increase in quantity supplied is balanced by a decrease in price. A supplier selling 900 kilos of coffee beans at \$11.00 per kilo would gain revenue of \$9,900, while the same supplier providing 1000 kilos at \$10.00 would have revenue of \$10,000, a gain of only \$100, or one per cent.
7f	1	A fall in the price of tea is likely to affect the level of demand for coffee. It could see a decrease in demand for coffee at any given price, causing a shift in the demand curve to the left, with a consequent fall in the equilibrium price for coffee.
7g	1	While a fall in the price of complementary goods can lead to an increase in demand for a good at a given price, it is relatively unlikely that a fall in the price of these two goods would have much impact on the market for coffee beans. Many people do not sweeten their coffee, and can use substitutes such as sugar. Biscuits are also a complementary good for tea drinkers, and many will drink coffee without a biscuit, so it is unlikely that changes in the price of biscuits will have much impact on the market for coffee beans.
8a	1	The law of demand simply states that as the price of a good rises, the quantity that consumers demand will fall; and as the price falls, the quantity demanded rises. There is an inverse relationship between the price of a good and the quantity demanded.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
8b	3	The movement or shift of the curve from D_1 to D_2 is called a decrease in demand. This means that <i>at each price</i> consumers in the marketplace are prepared to buy fewer soft drinks. This would be caused by an unfavourable change in the conditions of demand. Two factors that could cause a decrease in demand are: • changes in fashions and tastes. Consumers may change their preference from soft drinks to healthier drinks such as sport drinks. • the price of alternative or substitute drinks, such as flavoured milk, falls and consumers switch their spending from the soft drink to the alternative choice Students could also refer to other factors, including changes in disposable income, changes in population size and age distribution, changes in interest rates on borrowed money, changes in the price of complementary products, changes in the level of consumer and business confidence, changes in the seasons, changes in government policy and regulations.
8c	3	The decrease in demand for soft drink causes a movement along the supply curve (contraction in supply) and less is supplied at the new equilibrium price contraction along the supply curve. As demand decreases, the equilibrium price falls. As the price falls, sellers supply less to the market at each price because they are motivated by profit and the profit margin is decreasing. Furthermore, some firms will leave the market because they cannot cover their costs or change to the production of another good.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
8d	2	Market for soft drink Before the rise in price of bottled water Price of soft drink Quantity of soft drink demanded and supplied After the rise in the price of bottled water Price of soft drink Quantity of soft drink demanded and supplied
8e	2	Plastic bottles and labour are both productive inputs and as such are costs of production. If the price of plastic bottles and wages increase then the costs of production will increase. Both these factors are conditions of supply and cause a decrease in supply. Firms will supply less to the market at each price as the profit margin has decreased or firms leave the market (the supply curve will shift to the left). There will be a contraction along the demand curve as the increase in price will cause consumers to buy less (law of demand). The equilibrium market price will increase from E_1 to E_2 and the equilibrium quantity will decrease. Fewer resources will be allocated to the soft drink market.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
9	9	The banana crop in Queensland is destroyed by a cyclone  The effect of a heatwave on the market for air conditioners  The effect of a successful advertising campaign, 'Put some pork on your fork'.  A slowdown in China's economy and the market for iron ore  A rise in petrol prices on the market for large 4WDs  A rise in consumer confidence and disposable income for air travel  The government increases the excise tax on the sale of cigarettes  The aviation market one week before the AFL grand final when a non-Victorian AFL team made the final game  An increase in the government subsidy paid to childcare providers 

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
10a	4	Oil prices generally trended downwards between late 2014 and 2020 as a result of subdued demand across the world for oil. Part of this subdued demand is a result of a slow-down in China's economy in recent years. World supply of oil, on the other hand, has continued to rise due to new technology allowing oil to be commercially extracted from shale deposits, resulting in a surplus of oil around the world.
10b	4	i. Oil is used to produce many different goods including transportation of goods, paint, bitumen, petrochemicals, clothing, carpet, agricultural produce and packaging. There would be two effects on the allocation of resources given the recent fall in oil prices. First, lower relative prices received by oil producers would result in fewer resources moving into exploration and firms would attempt to decrease production. Profits would be likely to fall. Secondly, however, if the price of oil decreases then the costs of production decrease for some firms using oil as an input (e.g. aviation, owners of large cars and manufacturers of synthetics and plastics). This would increase business profits of firms operating in these areas. ii. For them, lower production costs and higher profits would probably mean that more resources would be allocated. There would be an increase in supply (shift to the right) causing the equilibrium price of some individual goods and services (e.g. aviation, large cars, plastics) to decrease. Where there is an increase in supply and a decrease in the equilibrium price, there will be more consumer demand and resources will be allocated to those goods and services. There would be a decrease in demand for substitute goods that would have a higher price and as demand decreases, fewer resources would be allocated to those industries or production.
10c	4	An excise tax on petrol is a cost to the seller but is passed on to the consumer because the demand for petrol is price inelastic. An excise tax increases the price of petrol and may affect the allocation of resources by shifting demand away from petrol (because it is more expensive) towards other forms of fuel such as ethanol, and hybrid cars, or away from large cars towards small, fuel-efficient cars. Resources are therefore re-allocated away from petrol and

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		towards other cheaper options. As seen in the diagram below, the effect of the excise tax is to shift the supply curve for oil upwards and to the left by the amount of the tax.
11a	2	i. The term 'relative prices' simply means the price level for one good or service compared with the price level of another.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		ii. In the figure provided, market prices for crops are all predicted to fall (for instance, wheat is predicted to fall by 6% and canola by 25%); in contrast, lamb and milk are predicted to rise by 5% and wool is predicted to see a 19% increase in price.
11b	2	Two demand factors that impact the falling prices are falling levels of overseas growth (reducing export demand) and higher interest rates (reducing consumption spending).
11c	2	Two supply factors that might impact the falling prices are good growing conditions and climate events (increasing the amount of crops available), and higher shipping costs (making the ability to access equipment more expensive and increasing the cost of maintaining livestock).
11d	2	Higher relative prices tend to lead to higher profits for producers, especially when the higher prices are caused by increases in demand. Given this, it would be expected that profitability would be increasing for milk farmers, wool farmers and farmers of saleyard lamb; but profitability would likely be decreasing for all other areas of farming listed.
11e	2	Assuming fully mobile resources and the desire to maximise profit, it makes sense to allocate resources towards those rural commodities where prices are rising, and away from those where prices are falling. More resources should be allocated towards the production of milk, wool and lamb, and away from beef, wheat, barley, canola, sugar and cotton.
12a	2	The demand curve has shifted to the right, from D1 to D2, indicating an increase in demand for hot dogs, resulting in an increase in price, from P1 to P2. A factor causing this increase in demand could be a change in consumer preference. Students could refer to other factors, including changes in disposable income, the prices of substitutes and complements, preferences and tastes, interest rates, changes in population and consumer confidence.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
12b	3	The increased demand will result in the demand curve shifting to the right, from D_1 to D_2 , resulting in the price increasing from P_1 to P_2 . At the same time, the quantity supplied will shift from 800 to 1200 hot dogs to accommodate the increase in demand, resulting in a new equilibrium price at E_2 .
12c	2	The price mechanism acts as a signalling and rationing mechanism to guide resources among competing uses to produce the types of goods and services that best satisfy society's needs and wants. With an increasing relative price for hot dogs, the vendors are likely to allocate more resources to the production of hot dogs.
13	6	Like all economies, Australia must address the problem of relative scarcity. Australia's market economy results in many economic decisions being determined by the market forces of supply and demand. Over time, changes in microeconomic demand and/or supply conditions alter the quantity demanded and/or supplied at a given price, thus resulting in changes in relative prices for goods and services across the economy. Changes in relative prices act as a price signal for producers to change their allocation of resources so as to meet changing demand and enabling profits to be earned for the production of those goods and services in demand. In recent Australian history we have seen the reduction in relative prices for commodities in the mining sector resulting in a reallocation of resources away from the mining sector into other non-mining sectors. For example, the decline in demand for labour in Western Australian mining towns has resulted in a significant shift of former mining workers back to the east coast of Australia looking for work in other locations (and industries). Another example is the recent fall in world prices paid for dairy products resulting in some Australian dairy farmers choosing (being forced) to reallocate their farms to other livestock or crops, or to leave the industry altogether. For both the dairy and mining industries, as demand increases, prices will again improve.

1.8 ACTIVITIES

Exercise

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1a	1	Price elasticity of demand measures the responsiveness of the quantity demanded of a good when there is a change in the price of the good. For example, if the price of a good rises by 10 per cent, we know that according to the law of demand, the demand will fall, but we do not know by how much. Will the demand fall by 3 per cent? 5 per cent? 10 per cent? If demand falls by 10 per cent in response to an increase in price of 5 per cent, the fall in demand is proportionally greater than the increase in price so the good is price elastic; that is, highly responsive to a change in price. Total expenditure will decrease. If the responsiveness of demand is a fall of less than 5 per cent, for example 2 per cent, then the fall in demand is proportionally less than the change in the price and so the good is price inelastic; that is, not very responsive to a change in price. Total expenditure will increase.
1b	3	Influences on the price elasticity of demand include: - the type of item or level of necessity. Basic foods would be very inelastic whereas luxury goods would be very elastic. If the good is a necessity, such as a basic food item, consumers will still continue to demand the product despite the increase in price, so the demand for such goods would be price inelastic. The demand for non-essential goods tends to be more price elastic. While it would be expected that the demand for luxury goods would be price elastic, they could also be price inelastic. For example, a wealthy person buying a Ferrari for \$500 000 may not be at all concerned about an increase in price. - the time period. The less time a consumer has to find an alternative will influence the relative elasticity of demand for a product. - the availability of substitute goods. If goods that are close substitutes are available, the demand for that good is price elastic because consumers can switch to buying another product easily.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
2a	1	Price elasticity of supply measures the responsiveness of the quantity supplied to the market when there is a change in the price of the good. The supply of goods to the market can be both price elastic or price inelastic. For example, if there is an increase in price of 5 per cent and the quantity supplied to the market increases by more than 5 per cent, then the supply of the good is price elastic.
2b	3	Factors that influence the price elasticity of supply are the time available to adjust output, the ability of producers to hold stock, and the extent of the excess capacity of the firm or the ability to increase the capacity of the firm in the short run. • The time period may be too short to allow any change in the level of output. The quantity that can be offered for sale may be fixed and hence completely unresponsive to price changes. In this time period, the supply is perfectly inelastic. For example, in a fresh fish market the supply of fish may be limited to what is caught by the fishers that day. Firms may, in the short run, be able to increase their level of output by using their existing facilities more intensively to respond to changes in demand for a product; for example, employing more labour, working the labour for longer hours, or using more raw materials. In the long run, firms can increase their productive capacity by investing in plant and equipment. The quantity offered for supply over this period will be very responsive to price changes and therefore supply tends to be highly elastic. The supply curve will be more elastic, the longer the period of time. • If firms can hold stocks of goods then the quantity they can offer for sale is not confined to their current level of output. If the stock can be stored, then as the price rises, the firm can simply use their accumulated stocks. If the price falls, then firms can reduce the quantity offered for sale and stockpile the goods. The greater the ability to hold stock, the more price elastic will be the supply. The extent to which firms can hold stock depends on the nature of the goods. Factors that need to be considered are the perishable nature of the goods, the cost of the goods and the size of the goods. • If a firm has unused productive capacity or can change their existing capacity quickly, then they can increase the supply of a good in a relatively short period of time. This good would be price elastic. If there is no excess capacity, then the only way a firm can increase supply is to build more machines or build a larger factory. In this case, the supply of the good would be highly price inelastic.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
3	2	Price elasticity is significant as it has important implications for both sellers and government. For example, retailers will often determine the discounts they offer customers, based on the elasticity of demand for the product to be discounted and the overall effect on revenue (quantity times price). The federal government may use the inelasticity of certain products to raise revenue. For example, an increase of the excise tax of tobacco and alcohol would be sure to raise more taxes.
4a	1	Price elasticity is the degree of responsiveness of the quantity of goods and services demanded or supplied to a given change in price.
4b	3	If the demand for tobacco is price inelastic, this means that the demand for tobacco has a low responsiveness to changes in price. It would require a very large change in price to result in either an extension or contraction in the demand for tobacco. Reasons for this include the habitual and addictive nature of smoking. The majority of those addicted to smoking will continue to smoke even when the price rises. A second reason is the health issues associated with smoking. A dramatic fall in the price of tobacco is unlikely to lead to a significant number new smokers entering the market to take up the habit because of these health concerns.
4c	2	An important advantage of increasing the tax on tobacco is the likelihood that very few smokers will respond to the tax by giving up smoking, so it becomes a reliable source of government revenue. Disadvantages include the likelihood that the aim of reducing smoking will not be met because of the relative inelasticity of demand for tobacco; and the fact that the tax could be seen as an unfair imposition on one section of the community.
4d	2	The price elasticity for most goods is relatively elastic over the long-term, meaning that supply is likely to be more responsive to price changes over longer periods of time. This is because the availability of most resources can be increased over a greater number of years, making supply more responsive to price changes.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>			
4e	4	Good	The likely price elasticity of demand is	The likely price elasticity of supply is	
		i. Petrol	Relatively inelastic because the majority of people drive petrol driven cars and there are substitute goods that can be used. Changing to an electric or LPG vehicle requires longer term decision-making on the part of the consumer.	Relatively inelastic as new supplies cannot be easily brought into the market to meet rises in price. Supply is largely determined by the policies of organisations such as OPEC. Such organisations often respond more to political issues than to changes in price.	
		ii. Bananas	Relatively elastic due to the large number of alternative varieties of fruit available.	Relatively inelastic in the short-term, as banana trees take some years to grow and produce fruit. A sustained relative high price and associated relative profitability of bananas may lead to some producers expanding their plantations, or new growers entering the market.	
		iii. Pepper	Relatively elastic because there are many alternative spices available.	Relatively elastic as pepper can be stored as whole peppercorns for a long period and processed to extend supply if the price rises.	
		iv. Gold	Relatively elastic, as gold tends to be used as a form of savings, and there are many other financial products that can be substituted.	Relatively inelastic as supply cannot be quickly extended to respond to price rises.	

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>				
4f	4	Product	Percentage change in price	Percentage change in quantity demanded	Calculation: the PED =	Is the demand for this product is price elastic or price inelastic? Why?
		A bottle of water sold in the desert	40	10	0.25	Relatively inelastic
		A 500g tub of margarine	20	30	1.5	Relatively elastic

1.9 ACTIVITIES

Exercises

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	2	Market failure occurs when the operation of the competitive market leads to an inefficient allocation or misallocation of a society's scarce resources. The operation of the market results in a less than socially optimal outcome and lower levels of general wellbeing. The competitive market reflects the preferences of private buyers and sellers, which may not reflect the preferences of society. As a result, the functioning of the market does not result in an allocation of resources that maximises the satisfaction of society's needs and wants.
2a	5	The market fails to allocate resources efficiently as follows: i. Asymmetric information — lack of knowledge between buyers and sellers may lead to market failure. A prerequisite for markets to operate efficiently is that both buyers and sellers have perfect knowledge so that rational choices and efficient decisions about resource allocation can be made. Where there is an imbalance of knowledge between buyers and sellers, the market does not work effectively, which results in an inefficient allocation of resources. Asymmetric knowledge occurs when there is not perfect knowledge or there is an imbalance in knowledge between the buyer and seller. An example of asymmetric knowledge is when the seller has knowledge of a product that they do not tell the consumer; for example, a car salesperson not disclosing the faults in a car to a potential customer, or cigarette companies not identifying the harmful effects of smoking. Another example is when consumers applying for bank loans do not supply the bank with all the necessary information for the bank to make an informed decision about the amount of money to lend the consumer. ii. Market power or weak competition — the market power exercised by firms in markets may lead to market failure. In a competitive market, firms are price takers; that is, the behaviour of one firm cannot influence the market price. Monopolists and firms that operate in oligopolistic market structures can set prices or restrict output and create barriers to entry. This restricts competition and output and results in higher market prices, resulting in the productive and allocative inefficiency of resources.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		iii. Public goods and services — when a competitive market does not provide certain goods or services demanded by society, or does not provide those goods or services in sufficient quantity, market failure may occur. Public goods and services have the features of being non-rivalrous and non-excludable and will not be provided by the competitive market because firms cannot make a profit from these goods. This is called the free rider problem. Examples of public goods are streetlights, national defence, lighthouses and pavements. iv. Externalities — externalities that result from the production of goods and services in the market can result in market failure. Externalities are the effects of a market transaction between private buyers and sellers on third parties not involved in the market transaction. Externalities can be both positive and negative. A negative externality is where there is a cost to a third party that results from the production or consumption of a good in the market. For example, the production of paint by a factory may result in chemicals or unpleasant odours being released into the air. This has a negative impact on people who do not use the paint. This cost is not reflected in the market price and is not paid for by the producer or the consumer. The cost needs to be internalised and reflected in the price of the good or the profit of the firm. If this does not occur, then an inefficient allocation of resources has occurred. A positive externality occurs where the production or consumption of a good results in a benefit to a third party not involved in the market. For example, if a person pays for education and training then other people may benefit from that education, such as a scientist developing a cure for a medical condition. This benefit is not reflected in the price of the education and so the market would result in an inefficient allocation of resources. v. Common access resources— include environmental natural resources such as air, minerals, oil, forests, river water and fish in the oceans. Such resources are both non-excludable (it is not possible to exclude people who do not pay) and rivalrous (because consumption of such resources can prevent consumption

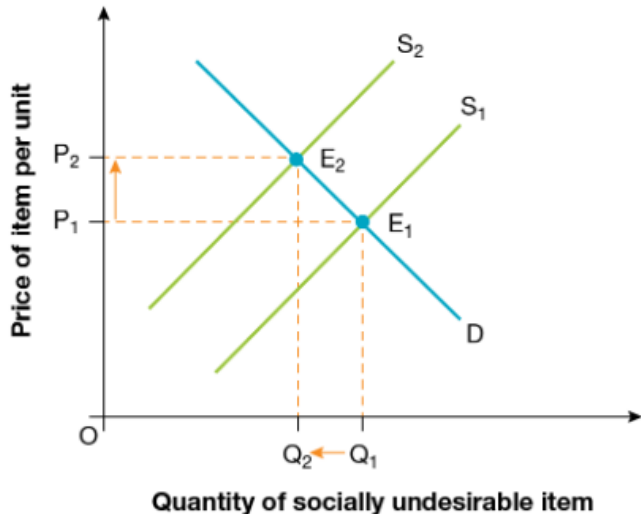
Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>														
		by others). The market fails to send the proper price signals for common access resources, which leads to an inefficient allocation of resources.														
2b		Types of market failure: <table><tr><th>Circumstance:</th><th>Type(s) of market failure:</th></tr><tr><td>i. Contagious whooping cough</td><td>Externalities</td></tr><tr><td>ii. Toxic waste poured down the sink</td><td>Externalities</td></tr><tr><td>iii. Mining company extracts and sells brown coal</td><td>Externalities and common access resources</td></tr><tr><td>iv. Get driven to school rather than walk</td><td>Externalities</td></tr><tr><td>v. Loggers clear rainforest for farming</td><td>Externalities and common access resources</td></tr><tr><td>vi. Neighbours’ wild party that rages for days</td><td>Externalities</td></tr></table>	Circumstance:	Type(s) of market failure:	i. Contagious whooping cough	Externalities	ii. Toxic waste poured down the sink	Externalities	iii. Mining company extracts and sells brown coal	Externalities and common access resources	iv. Get driven to school rather than walk	Externalities	v. Loggers clear rainforest for farming	Externalities and common access resources	vi. Neighbours’ wild party that rages for days	Externalities
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Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>							
		vii. Director of failing company sells shares before the announcement	Asymmetric information						
		viii. Selling a smartphone after dropping it into a cup of coffee	Asymmetric information						
2c	4	Use of the budget to address market failure: <table><tr><td>Budget receipts</td><td>i) How the policy measure might affect the way Australia uses or allocates its scarce resources and ii) why the government uses the particular policy to alter the allocation of our resources</td></tr><tr><td>Income tax on individuals is a direct tax levied by the federal government on the wages and salaries of individuals.</td><td>This tax reduces the amount of income that individuals have to spend; that is, it reduces their disposable income and their ability to purchase goods and services. The taxes flow to the government, which increases the government’s ability to spend in the economy. This causes the scarce resources in the economy to flow from private individuals to the government. The government uses this policy to provide goods and services not provided by the market or by the market in sufficient quantities; for example, public goods such as roads.</td></tr><tr><td>Company tax is a direct tax levied</td><td>Company and resource rent taxes reduce the income that the firm has to spend. It increases government receipts, which increases the government’s</td></tr></table>		Budget receipts	i) How the policy measure might affect the way Australia uses or allocates its scarce resources and ii) why the government uses the particular policy to alter the allocation of our resources	Income tax on individuals is a direct tax levied by the federal government on the wages and salaries of individuals.	This tax reduces the amount of income that individuals have to spend; that is, it reduces their disposable income and their ability to purchase goods and services. The taxes flow to the government, which increases the government’s ability to spend in the economy. This causes the scarce resources in the economy to flow from private individuals to the government. The government uses this policy to provide goods and services not provided by the market or by the market in sufficient quantities; for example, public goods such as roads.	Company tax is a direct tax levied	Company and resource rent taxes reduce the income that the firm has to spend. It increases government receipts, which increases the government’s
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Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>	
		on the income of firms. The income of the firm is their profit. Resource rent tax is a tax on certain profits generated from the extraction of taxable resources on, mostly, iron ore & coal.	capacity to access resources, so the effect of the taxes is to reallocate resources from the private sector to the government. The government uses this policy to provide goods and services not provided by the market or not provided by the market in sufficient quantities, such as schools and hospitals.
		Goods and services tax	This tax is added to the price of goods and services to provide the government with additional revenues to spend on crucial services to the public such as health, education and welfare. The GST money collected is given back to the state governments in order for them to allocate vital resources to state-funded goods and services.
		Petroleum and other excise taxes are indirect taxes levied on	An excise tax on petrol, tobacco and alcohol is a cost to the seller but is largely passed on to the consumer. An excise tax increases the price of petrol, tobacco or alcohol and may affect the allocation of resources by discouraging supply, contracting demand due to the rise in price and shifting this away from petrol, tobacco or alcohol towards other types of

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>		
		petrol, tobacco and alcohol.	cheaper goods and services where there is no tax applied. For instance, in the case of the excise of petrol, consumer demand may tend to switch to other forms of fuel such as ethanol and hybrid cars, or away from large cars towards small, fuel-efficient cars. Resources are therefore re-allocated. The government uses this policy to address the issue of negative externalities, which is an example of market failure.	
		Government outlay	i) How the policy measure may affect the way Australia uses or allocates its scarce resources and ii) why the government may use this particular policy to influence resource allocation	
		Social security and welfare outlays are cash transfer payments to the neediest groups in the economy. These payments are asset tested and means tested.	These cash transfer payments allocate more resources to low-income groups in the economy such as the unemployed, carers, students, pensioners and low-income families. The purpose of this policy is to create a more equal distribution of income in society and to improve living standards.	

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>		
		Health expenditure is government expenditure on running the public health system.	This spending provides resources for health services for low-income earners. If low-income earners use the public health system more than high-income earners, more resources are being allocated to the provision of health and to low-income earners. The purpose of this policy is to create a more equal distribution and to improve living standards in our society.	
		Defence outlays are payments for the day-to-day running of the armed services for border protection, peacekeeping duties.	Defence expenditure is a public good because of the non-rivalrous and non-exclusive characteristics of defence. As defence spending increases then more resources are allocated to the provision of defence equipment. The purpose of this policy is for the government to provide an essential good that will not be provided by the free market.	
		Education spending provides public education, universities, support of state and non-	This spending allocates resources to the provision of education. The purpose of this policy is to provide an essential good for all members of society as every individual has a right to education. Expenditure on public education gives low-income earners access to education that they would not be able to afford. This improves the living standards of our society.	

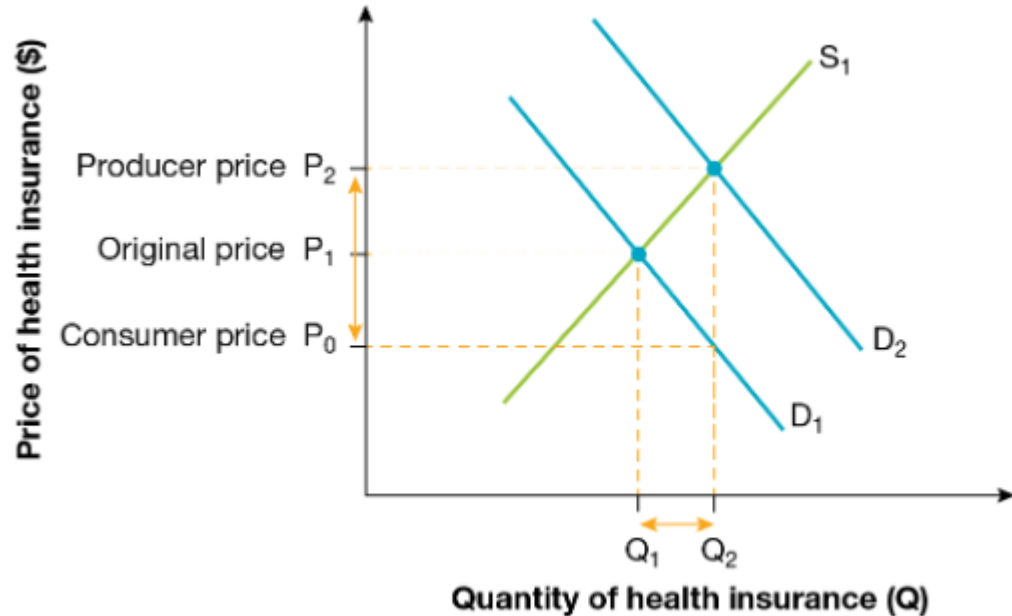
Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		government schools, vocational training, and education and building programs.
2d	4	The effect of a carbon tax  A carbon tax is an indirect tax levied on firms that emit carbon dioxide into the atmosphere. Carbon dioxide is a negative externality. The purpose of the tax is to impose the cost of the pollution onto the producer to reduce their

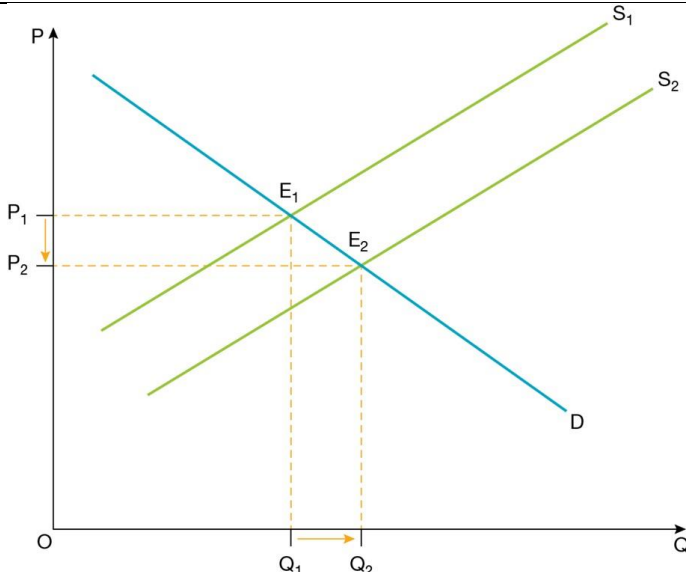
Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		profit. The firm needs to pay this cost. Placing a tax on carbon emissions will increase the cost of production, which will create less favourable supply-side conditions. Producers will be discouraged from producing or supplying the good, causing a decrease in the quantity supplied at a given price. There will be a decrease in supply to the market. The supply line shifts upwards from P_1 to P_2 equal to the tax per unit. This causes the equilibrium price to increase from P_1 to P_2 . Following the imposition of the tax, buyers will be faced with a higher equilibrium price, resulting in less demand for products involving the production of carbon dioxide. This will cause fewer resources to be allocated to that particular market.
2e	2	The free rider problem relates to an area of market failure involving the provision of public goods. These are goods that will not be provided by the market or provided in insufficient quantities because of two characteristics: they are non-rivalrous and non-exclusive. Examples are street lighting, footpaths, defence and lighthouses. Street lighting is a public good because it is non-rivalrous as one person's use of the good does not deprive another person of such use or does not diminish the amount available to others. If one person benefits from walking along a well-lit street at night, others are not deprived of the same benefit. It is non-excludable because if one person is using the street light then another person cannot be excluded from using the street light. The consumption of the good by one person cannot stop the consumption by another person. This creates the free rider problem where it is difficult to exclude members of the community who do not pay for the good from using the good. These goods are not profitable because consumers would not pay because they can gain the benefit without having to pay. The marketplace therefore does not provide these goods.
2f	4	One policy the government could implement is to supply these goods directly. The government puts more resources into socially desirable production such as roads through outlays. These outlays are normally done through the annual budget and are largely paid for from taxation receipts. A second policy in the case of goods such as footpaths, flood barriers and street lighting is to make them free of a direct charge.
2g	4	Government subsidies

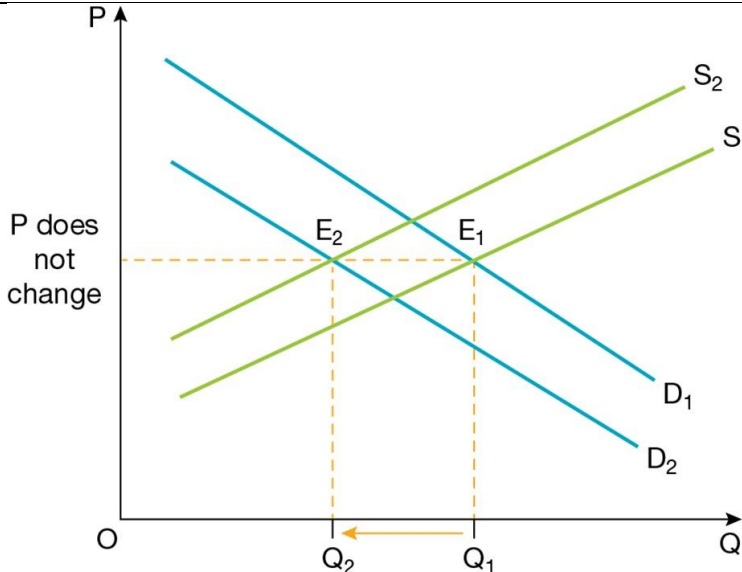
Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		i. A government subsidy is a benefit given by the government to firms or individuals, usually in the form of a cash payment or a tax reduction. The government can provide subsidies to both consumers and producers. A subsidy to consumers encourages them to purchase a particular good. There is an increase in market demand at each price. A subsidy to a producer enables the producer to sell their product in the market at a lower price than would otherwise occur. The subsidy reduces the costs of production, which causes an increase in supply. ii. If the government paid Australian sugar growers a subsidy to leave the sugar industry, the supply of sugar to the market at each price would decrease. There would be a decrease in supply as sellers left the sugar market and used their resources to produce an alternative good. The decrease in supply would cause a new market equilibrium to occur at a higher price and a lower quantity. There would be a contraction along the demand curve. This would cause fewer resources to be allocated to the sugar market.

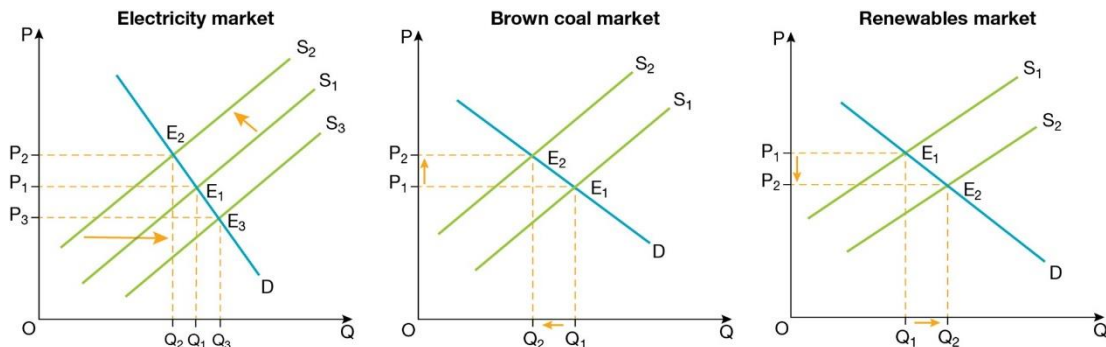
Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		The graph illustrates a decrease in the supply of sugar. The demand curve D_1 remains unchanged. The supply curve shifts leftward from S_1 to S_2. This shift results in a new equilibrium point E_2 at a higher price P_2 and a lower quantity Q_2, compared to the initial equilibrium point E_1 at price P_1 and quantity Q_1.
2h	2	The listing of ingredients provides additional information to consumers. This helps overcome the potential market failure of asymmetric information.
2i	2	Online dating sites will only provide the level of information that those participating wish to supply, so the market failure of asymmetric information applies.

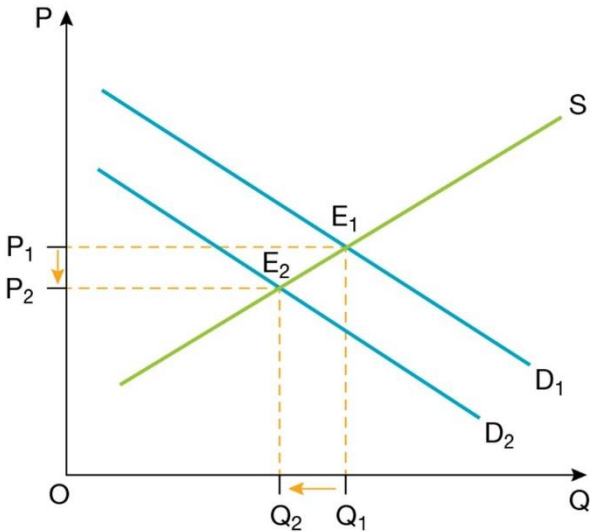
Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
2j	2	The government provides free vaccinations as a public good and service to overcome the potential market failure that might occur if the private sector were to be relied on, and the cost may deter some consumers.
2k	3	The federal government pays a tax rebate of up to 30% for individuals who take out private health insurance. This financial incentive or subsidy to buyers of health insurance helps to increase the allocation of resources into socially desirable goods and services, easing pressures on public hospitals and ultimately government finances. This action helps to correct market failure by encouraging individuals to take out private health insurance (D_1 to D_2). This causes the market price received by producers of health to increase and become more profitable (P_1 to P_2), causing an expansion of supply up along the supply line, and the quantity of health insurance rises (Q_1 to Q_2), attracting more resources into the industry. However, consumers only now pay a lower, more attractive price for health insurance (P_0). The difference between price P_2 received by producers and price P_0 paid by consumers represents the cost to the government of the scheme. While the scheme costs the government money, this is less than the cost for health that would occur if fewer people took out health insurance and more people depended on the government meeting the full cost of their health through the public system.

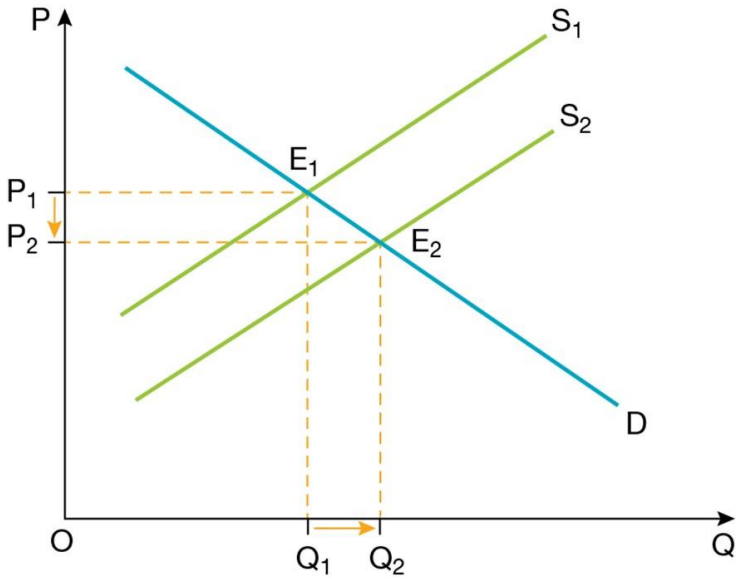
Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		 The health market before and after the introduction of the government's health insurance rebate
21	6	i. The removal of tariffs on imported cars should result in lower prices, which is likely to lead to an extension of demand. Suppliers will respond by increasing supply at a given price, leading to a shift in the supply curve downwards and to the right. The new equilibrium price will be lower, with an increase in the equilibrium quantity supplied.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		 ii. Lifting the legal age for the purchase of alcohol would see a decrease in demand at any given price, with the demand curve shifting to the left. Suppliers would respond by reducing supply at a given price, also moving the supply curve to the left. This would likely result in the equilibrium price remaining at a similar level, but with a lower equilibrium quantity.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		 iii. The merger of two large oil companies could create a new entity with greater market power as a price maker. Such an entity could attempt to raise prices, but would have to face scrutiny from the ACCC, and may have limits placed on the exercise of its greater market power. The result is likely to be little or no change in market supply or demand. iv. The introduction of a tax on the use of brown coal to generate electricity would see a rise in price in the short-term, leading to a minor contraction in demand. This would be minor because of the relative inelasticity of demand for electricity. Suppliers would decrease supply at a given price, leading to a small shift in the supply curve to the left. In the market for brown coal, demand would also contract, with electricity generators demanding less as a result of the price rise caused by the increased tax. This would see a shift of the supply curve to the left, to reflect the reduced supply at a given price. The market for renewable energy sources would see an increase in demand from energy companies at a given price, resulting in a shift of the demand curve to the right. Producers of renewables would respond by

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		increasing supply, moving the supply curve to the right to result in an increased equilibrium quantity of renewable energy, at a similar equilibrium price as existed previously. The impact of this on the energy market would see an increase in supply at a given price, resulting in a shift of the supply curve to the right, either to its original position, or even further to the right. The lower price of the increased supply of electricity would lead to an extension of demand along the demand curve to a new equilibrium price and quantity. This could be similar to that which existed before the imposition of the tax, or could actually be further to the right, with a lower equilibrium price and an increased equilibrium quantity supplied and demanded.  The figure consists of three separate supply and demand graphs, each with Price (P) on the vertical axis and Quantity (Q) on the horizontal axis. Electricity market: Shows a downward-sloping demand curve (D) and two upward-sloping supply curves, S₁ and S₂. S₂ is to the right of S₁, with an orange arrow indicating the shift. A third supply curve S₃ is shown further to the right. Equilibrium points E₁ (at P₁, Q₁), E₂ (at P₂, Q₂), and E₃ (at P₃, Q₃) are marked. P₂ > P₁ > P₃ and Q₂ < Q₁ < Q₃. Brown coal market: Shows a downward-sloping demand curve (D) and two upward-sloping supply curves, S₁ and S₂. S₂ is to the left of S₁, with an orange arrow indicating the shift. Equilibrium points E₁ (at P₁, Q₁) and E₂ (at P₂, Q₂) are marked. P₂ > P₁ and Q₂ < Q₁. Renewables market: Shows a downward-sloping demand curve (D) and two upward-sloping supply curves, S₁ and S₂. S₂ is to the right of S₁, with an orange arrow indicating the shift. Equilibrium points E₁ (at P₁, Q₁) and E₂ (at P₂, Q₂) are marked. P₂ < P₁ and Q₂ > Q₁. E₁ - Before tax E₂ - After tax E₃ - Increased renewables enter market v. Applying a tax to foreign property buyers would see a decrease in demand at a given price, leading to a shift in the demand curve to the left. This would see a contraction in supply as fewer sellers would be prepared to enter the market at the lower equilibrium price.

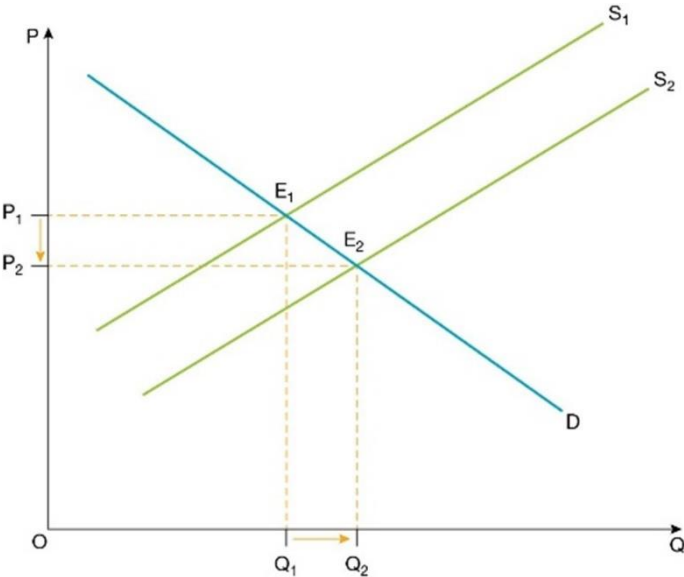
Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		 vi. Freight subsidies would result in an increase in the supply at a given price of Tasmanian apples to markets in other states. This could result in a move of the supply curve to the right, leading to an extension in demand with a lower equilibrium price and increased equilibrium quantity supplied and demanded.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		 The graph illustrates a rightward shift in the supply curve from S_1 to S_2. The demand curve D remains stationary. The initial equilibrium point E_1 is at the intersection of D and S_1, with price P_1 and quantity Q_1. The new equilibrium point E_2 is at the intersection of D and S_2, with a lower price P_2 and a higher quantity Q_2. The shift in supply leads to a decrease in price and an increase in quantity.

1.10 ACTIVITIES

Exercise

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	2	Government failure is a situation where government intervention in the economy can decrease efficiency and lead to a misallocation of scarce resources. One example of government failure is the attempts to assist first home buyers with the purchase of a property. Various grants, low interest loans, subsidies and loan guarantees have been attempted but the general view among economists has been that these schemes have generally failed. Providing these forms of assistance has brought more buyers into the market, but has not seen an increase in supply to match the additional purchasers. This has meant rapid rises in house prices, soaking up any advantage that might have been expected from the various assistance schemes.
2a	2	Coal companies in Australia receive a range of subsidies, which means the government is providing financial assistance to producers. These subsidies take the form of fuel tax credits, funding of research and development programs, the provision of infrastructure used by the companies and a variety of tax concessions.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
2b	4	 The diagram above demonstrates the effect of the government's payment of coal subsidies. The intent is to reduce the cost of production for coal miners, enabling coal to be sold at a lower price than otherwise. This helps create jobs, adds to incomes and GDP and enables energy production to be cheaper, which benefits material living standards.
2c	4	As the diagram in part b demonstrates, more coal is being produced than otherwise would have been made available to the market without the government subsidy. This can be seen as an example of government failure as the increased quantity can be seen to represent an inefficient allocation of resources which are not maximising societies living standards. The government can be seen to be promoting the use of polluting, high carbon-intensive fossil fuels, which leads to external externalities. For instance, increased burning of carbon has been linked to global warming, severe weather events and climate change, all of which will have a significant impact on the Australian economy and

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		have an adverse effect on both material (reduced access to goods and services as climate change makes food production more expensive) and non-material living standards (through pollution and the destruction of the natural environment).
3a	4	The government offers a number of schemes intended to help improve housing affordability: • First Home Loan Deposit Scheme (FHLDS): This scheme involves allowing first home Australian buyers (must be owner occupiers, not investors) can access the property market with as little as a 5 per cent deposit as they would not have to pay the hefty Lenders Mortgage Insurance. • Family Home Guarantee scheme: this scheme targeted single parents with dependent children so they could purchase an existing house or build a new home, having just saved a 2 per cent deposit (not the normal 20 per cent). • Regional Home Guarantee: this scheme makes up to 10 000 places per year available for eligible first home buyers in regional areas of Australia. • First Home Super Saver Scheme: From July 2022, this scheme makes it easier for allowed eligible home buyers to meet deposit requirements by allowing individuals to gain tax advantages by voluntarily saving up to \$50 000 within their superannuation fund. Homebuyers are able to meet their home deposit requirements almost 30 per cent faster than using standard bank savings accounts.
3b	4	The main problem of most recent housing policies is that they have largely failed, simply because they have driven up the demand for property more than they have increased its supply, by making it easier for buyers to meet the deposit requirements for a bank loan. Unintentionally, this has put even more upward pressure on house prices forcing first home buyers to take out larger mortgages than they otherwise would have to. This has reduced housing affordability, when the intent was to make housing more affordable for more people. Further, many people used these schemes and took out loans when the mortgage rates was at an historic low. With rising rates, and now with

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		falling house prices, the government may have unintentionally created a situation where people are unable to meet their loan repayment; further, if housing prices begin to fall these people may also see themselves in a situation where they have significant debt but with a falling asset price.
4a	2	If the labour market were to operate as a free market, there would be extreme variation in wages and many people would themselves in a situation where their pay and conditions are so low, they would be unable to maintain a dignified standard of living. To ensure this is not the case, the government intervenes in the market and sets a minimum wage to ensure people can achieve a reasonable standard of living and to avoid exploitation of workers.
4b	4	

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		Some economics will argue that a minimum wage can be seen as an example of a government failure. This will mainly be the case if it is believed the minimum wage is set too high above the equilibrium wage. As the diagram demonstrates, the supply of labour will be significantly higher than the demand for labour, causing unemployment. When we have unemployment, we have idle resources and therefore we cannot be said to be operating in an efficient manner. Further, this can be seen as unnecessarily increasing cost of production and slowing productivity growth, which increases prices and reduces access to goods and services and therefore unintentionally lowers material living standards.

1.11 REVIEW

Section A: Multiple choice questions

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	1	A A shortage of labour would decrease the amount of fruit that farmers would be able to produce, decreasing supply and thus resulting in a lower equilibrium quantity and higher price.
2	1	C Government spending on new public housing would increase the supply of available houses, addressing some of the demand for housing and thus reducing the equilibrium price of houses.
3	1	C Opportunity cost refers to what we miss out on by choosing a particular option. In this case, the government's decision to invest in a new road network would decrease the available funds it has to invest in services, such as education.
4	1	D Such a campaign would decrease the demand for alcohol, shifting the curve inwards from D_1 to D_2 , resulting in a shift of the equilibrium point from A to B.
5	1	D A vertical supply curve would reflect the set number of paintings that the artist produced while alive.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
6	1	D The rival characteristic refer to whether the good can only be consumed by one individual at a time or if it is non-rival, at the same time with to others (i.e. a shirt vs TV). The excludability characteristic of a good refers to whether you can restrict access to that good (i.e. a shirt vs a street sign). Public goods are goods and/or services available for all people to use free of charge and they are consumed simultaneously with others (e.g. the law, defence, parks and beaches, most public roads). Therefore they are non-excludable and non-rivalrous in their nature.
7	1	A If the price of a product falls with no change in the equilibrium quantity then the likely cause is a fall in demand. If demand and supply both decrease or increase then the equilibrium price or quantity will change and that is counter to the premise of the question and so Options C and D are not correct.
8	1	C Opportunity cost measures what is forgone when an economic decision is made. In this question, in the time it takes Daphne to make dress, she could alternatively make 3 shirts. Therefore to make an extra dress she forgoes making 3 shirts.
9	1	D A drought would result in a lower wheat harvest, due to unfavourable supply-side conditions. On a supply-diagram, this is represented by a shift in the curve to left. The new diagram will show a higher equilibrium price but a lower equilibrium quantity.
10	1	D Resource mobility is a key feature of perfectly competitive markets, hence resources not being mobile would not be a feature. All other options are features of perfectly competitive market.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
11	1	C A substitute good is one that can be used instead of the original good, resulting in the same level of satisfaction or utility for the consumer. If the price of a substitute were to rise, then demand for the original good would increase. This would see the demand curve shift to the right, leading to a higher equilibrium price.
12	1	A The scenario described shows that demand is very responsive to changes in price, hence it describes demand elasticity.
13	1	A & B ‘Tastes and needs of consumers’ would indicate that the answer should be allocative efficiency, but the use of ‘changing’ would indicate dynamic efficiency. VCAA Examination Report note: Both options A and B were accepted as it was difficult to distinguish between dynamic efficiency and allocative efficiency based on the information provided in the question.
14	1	A At a particular point in time, the quantity of resources available for national production is fixed (static). The quantity or quality of resources available is limited, so Australia’s capacity to produce is severely restricted.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
15	1	B The opportunity cost is \$12. Opportunity cost is equal to the benefit forgone by a decision not to direct resources into the next best alternative use.
16	1	B In competitive markets, the conflict of businesses wishing to sell their products at high price and consumers who wish to purchase goods at low prices. This is generally solved by reaching a compromise price through the competitive operation of market forces.
17	1	B If a competitive market existed for vegetables, the price may fall as a result of the development and use of new higher yielding types of seed. A poor growing season adversely affecting producers, or lower labour productivity by vegetable growers would decrease supply of vegetables.
18	1	D All of the possible policies listed above could actually operate to reallocate resources.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
19	1	A Substitutes are a particular good or service that can be easily replaced by another. Margarine, for instance, can be a substitute for butter. When the price of the original product being purchased goes up, buyers switch to a cheaper substitute. This decreases the demand for the original item at a given price but increases the demand for the substitute. Therefore, in a free or competitive market, a rise in the price of butter is likely to result in an increase in the demand for margarine.
20	1	C Setting artificially high wages will cause the demand for labour at that wage level to fall as some businesses will be unable to pay these higher wages. At the same time, labour supply will increase as more people will enter the labour market because of the promised higher wages. The difference between the quantity of labour demanded and supplied will result in higher levels of unemployment.
21	1	A Capital resources are physical plant and equipment used by firms to help make other goods and services. Capital resources are manufactured items set aside from past production, often involving physical plant and equipment (such as machinery, factories, power generators, computer systems, trucks, dams, railways and roads) used by businesses and governments to help make other goods and services. Capital equipment also incorporates new technology that results from research and development (R&D).
22	1	B Productive or technical efficiency implies using the lowest cost production methods, and minimising wastage of resources in making goods and services.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
23	1	C Public goods differ from private goods (the items most of us purchase every day) in two ways: 1. Excludability — public goods are usually non-excludable. 2. Rivalry — public goods are usually non-rivalrous in nature.

Section B: Extended response questions

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1a	2	During the period from 1961–2017, Australian fisheries may have developed and implemented new fishing technology (such as netting) which improves the productivity of fishing because it allows for a greater level of output (greater volume of fish) for fewer inputs (labour time spent fishing, wages for fishers etc.). As such, per-unit costs of production fall for fisheries, which increases their level of profitability and hence increases their willingness and ability to supply at all price points (i.e. an increase in the supply of fish). This could cause a new equilibrium in the market of fish with a lower market price and a greater volume purchased or consumed. Award 1 mark for outlining one relevant demand or supply factor. Award 1 mark for linking the factor to the increase in consumption of fish. VCAA Assessment Report note: To achieve full marks, students needed to identify a relevant factor and then link the factor to the increase in consumption of fish. The question was generally handled well, with some leniency afforded to students when determining the validity of demand and supply factors in the context of the question. Students with the highest-scoring responses were able to immerse themselves in the scenario and respond by referring to factors that may be responsible for the ‘long-term growth’ in fish consumption, spanning a period of more than 50 years. For example, they were able to identify factors such as growth in average disposable incomes across the globe over this time (demand) and advances in technology or improved fish-farming techniques (supply). Examples of errors and misconceptions included: • simply referring to a lower price of fish, which increases demand

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		• listing a relevant factor (e.g. changes in tastes or higher price of substitutes) without explaining how it has resulted in greater fish consumption • simplifying the question by focusing on fish sold in a fish and chip shop in an Australian city and then referring to demand/supply factors that are more relevant in that context (e.g. a lower cost of casual labour helping to reduce costs and prices) • wasting time by referring to both a demand and a supply factor.
1b	3	Common access resources refer to resources that are non-excludable (non-paying consumers cannot be excluded from accessing the resource), but depletable (the consumption by one entity necessarily hinders the ability of a subsequent entity to enjoy the same consumption). This causes profit-maximising fish firms, who notice the 'average annual growth of total food fish consumption at 3.1%', to seek to maximise their access to the fish resources in open water. They increase their catchment of fish resources in open water through increased commercial netting. Since these firms cannot be excluded from accessing the finite fish resources, this causes an overconsumption of fish in open water, as evidenced by the decrease in biologically sustainable fish levels from 9% in 1974 to 65.8% in 2017. This depletion in fish resources causes an imbalance between the satisfaction of current generations with the ability of future generations to enjoy the same level of access to fish resources. This indicates a failure to meet intertemporal efficiency. Award 1 mark for identifying the characteristics of common access resources (e.g. non-excludability and rival in consumption/depletability). Award 1 mark for make a meaningful reference to the quote. Award 1 mark for establishing a link between the characteristics and a less efficient allocation of resources. VCAA Assessment Report note:

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		To achieve full marks, students needed to identify the characteristics of common access resources (e.g. non-excludability and rival in consumption/depletability) as well as make a meaningful reference to the quote before establishing a link between the characteristics and a less-efficient allocation of resources. Most students recognised the key components of the question. Namely, the need to both identify the characteristics of common access resources and to establish a link between these characteristics and a less-efficient allocation of resources, while making meaningful reference to the quote. Responses that did not score well did not focus on common access resources (and therefore did not identify the characteristics of non-excludability and depletability) and instead explained how resource depletion due to overfishing was an example of a negative externality in production. Responses that scored highly made a link to either intertemporal efficiency or allocative efficiency as they explained why, in the absence of government intervention, the existence of common access resources leads to an overallocation of resources to certain activities or production, leading to resource depletion and a socially suboptimal allocation of resources. Examples of errors and misconceptions included: • no meaningful reference to the quote • no attempt to demonstrate an understanding of the characteristics of common access resources.
1c	3	Fish are a common access good where consumption is non-excludable but the product is rivalrous meaning that consumption by one excludes consumption by the other. This creates market failure, a situation where the market allocates resources in a way which does not maximise the general satisfaction of society's needs and wants. In the fisheries market, this occurs because the non-excludable resource fish is over-consumed. One government intervention that could be used is government regulation, where the consumption and production of common access resource are monitored and managed by the governments to limit the over consumption of the product. This could be in the form of a fishing licence that permits only a few businesses to harvest fish.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		Award 1 mark for defining market failure and showing why it is present in the fish market. Award 1 mark for providing an example of government intervention used to address this market failure. Award 1 mark for an explanation of how the stated government intervention would reduce market failure. VCAA Assessment Report note: To achieve full marks, students needed to identify a relevant government intervention and then explain how it addresses market failure associated with common access resources (CAR). Most students were able to outline a relevant government regulation (e.g. one involving the introduction of licenses and quotas) but did not sufficiently explain how it addresses the market failure associated with CAR. For example, how the introduction of more stringent quotas or licenses work to reduce the supply of fish to markets, raising prices, reducing demand and leading to lower production levels so that fewer resources are allocated to fish production or extraction. This helps to ensure that there is no longer an over-consumption of fish (or some other common access resource) and a suboptimal allocation of resources. In relation to specific initiatives, some students were able to accurately identify subsidies or indirect taxes as a potential intervention to address the market failure, but they could not adequately explain how these could be employed to reduce exploitation of fish stocks (or some other CAR). Responses that did not score well simply asserted that the government could give subsidies to the fishing industry without explaining how this could potentially reduce overfishing. Responses that scored highly made it clear that the subsidy could be given to those producers who are prepared to reduce the volume of fish taken from the ocean or even to producers of substitutes or those organisations that have a mandate to preserve fishing stocks or promote sustainability more generally. Examples of errors and misconceptions included: • listing a relevant government intervention without explaining how it addresses the market failure

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		not recognising the important role that the price mechanism can play in addressing market failure (e.g. the use of taxes on the fishing industry, which raises prices, reduces demand, decreases production and results in a reduced exploitation of fishing stocks).
1d	2	Positive externalities in consumption refer to the positive effects on a third party (not the producer or the purchaser/consumer of a product) that arises out of the consumption of a particular product. One such good is the COVID-19 vaccines, which helps to protect the initial user but also promotes herd immunity when more people consume it, which protects the health of third parties or those who refuse to, or are unable to, take the vaccine (due to health reasons). Award 1 mark for defining positive externalities. Award 1 mark for providing an example of a positive externality. VCAA Assessment Report note: To achieve full marks, students needed to demonstrate an understanding of positive externalities in consumption and then provide a relevant example. Most students were able to explain what is meant by positive externalities in consumption using a relevant example in support. In some cases, the examples were quite unique, but no less relevant, such as the consumption of deodorant providing third-party benefits to those who didn't purchase the deodorant. Students should be careful when attempting to demonstrate an understanding of positive externalities to focus on the benefits that are provided to third parties as a consequence of the actual 'consumption' of the good as opposed to the 'purchase' of the good. For example, it is not correct to argue that the consumption of a hamburger from a fast-food chain is an example of a positive externality in consumption if the producer of the hamburger advertises that a portion of the sale proceeds is donated to a charitable cause that benefits society in some way.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		Examples of errors and misconceptions included: • Many students provided an example of a good or service conferring positive externalities in consumption without making it clear what is meant by positive externalities in consumption. • Some students accurately identified a good or service that typically provides positive externalities in consumption (such as education and health) but then focused on the private benefits without paying attention to the external or third-party benefits. • Some students incorrectly focused on positive externalities in production.

1e	3	The price elasticity of supply of a product refers to the level of responsiveness of the quantity supplied of a product in response to changes in its price. If there were technology improvements in the storage and preservation of fish (e.g. the invention of a new preservative chemical), this would increase the durability of fish. This would allow firms to store fish resources quickly and safely as inventory following a decrease in its price to minimise losses, and conversely draw from its inventory quickly and safely to increase supply of fish in the market following a price rise in order to maximise profits. Therefore, this new production factor that increases the durability (storability) of fish would allow the level of supply to increase/decrease by a greater proportion than the percentage increase/decrease in price, making the supply of fish more price elastic. Award 1 mark for defining price elasticity of supply. Award 1 mark for providing a factor that would affect the price elasticity of supply of fish. Award 1 mark for providing an explanation of how the factor affects the price elasticity of supply. VCAA Assessment Report note: To achieve full marks, students needed to demonstrate an understanding of price elasticity of supply (PES) of fish and identify a factor that influences the PES of fish. They also needed to link the factor appropriately to the level of PES (high or low). Many students found it difficult to demonstrate a clear understanding of what is meant by the PES and/or to identify how a relevant factor (e.g. durability/storability/production period) would influence the PES. Responses that scored highly explained how a relevant factor (e.g. storability), or a change in the factor, such as improved storability of fish (e.g. due to advances in refrigeration technology), would result in a higher PES as suppliers would be more responsive to a change in price. Equally, students were able to achieve full marks by identifying a relevant factor, such as storability, and explaining how the perishability of fish makes them less storable, causing the PES of fish to be low. Examples of errors and misconceptions included: • inappropriately explaining factors that impact on the price elasticity of demand for fish (e.g. the price or availability of substitutes)
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Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		- describing a relevant factor that affects the PES (e.g. durability or storability) but without clarifying how or why an increase/decrease in storability/durability causes the PES to increase/decrease - inability to demonstrate a sufficient understanding of PES.
2a	2	During the last two years, the rate of growth in house declined until house prices began to grow. They grew by from –1.8 in 2020 to 6.7 in 2021. Award 1 mark for describing an upward trend. Award 1 mark for quoting data to support the answer. VCAA Examination Report note: For students to score full marks on this question, they needed to describe the trend in the growth of Australia’s housing prices over the specified period (the past two years) and refer to some of the data in the graph to provide evidence to support their description. While most students were able to be awarded the full two marks, some students had difficulty demonstrating the distinction between changes in the rate of growth in housing prices as shown on the graph and a change in house prices. Many students were able to identify the trend in growth, but offered contradictory or confusing statements, such as: - Housing prices have dropped by 17% over the period. - House prices declined to –5%. - House prices have begun to decline in 2018. A high-scoring response needed to demonstrate that while the trend in housing price growth was declining overall, housing prices were not necessarily falling. In fact, over much of the period, housing prices were actually still increasing, but at a slower rate. Many students simply described the changes in housing prices rather than changes in the growth of housing prices.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
2b	3	Living standards have two components. There are material living standards which relate to the quantity of goods/services that we consume and non-material living standards which relate to the quality of goods/services that we consume. Increasing house prices can affect different people in different ways. Non-materially, a home owner might experience a 'wealth effect'; that is, home owners feel 'more wealthy' as the increase in the growth in house prices creates more confidence in homeowners due to a possible increase in their expectations related to the increase in the value of their largest asset, their home. Home buyers, on the other hand, may experience a reduction in their material living standards since higher house price will reduce their abilities to consumer other goods. So the quantity of material goods they consume will be reduced. Award 1 mark for definitions of material and non-material living standards. Award 1 mark for description of material living standards. Award 1 mark for description of non-material living standards. VCAA Examination Report note: Students generally handled this well. They were expected to describe one likely effect of the trend (indicated in Question 1a.) in the growth in housing prices on Australian living standards. Students were able to choose whether they described the likely effect on material or non-material living standards. They were not required to describe the effect on both material and non-material living standards to score full marks, although many students did write about the likely effect on both. Students described a wide number of likely effects in response to this question.
2c	3	The following is an example of a possible high-scoring response.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		Price elasticity of demand (PED) measures the responsiveness of changes in quantity demanded to changes in prices. PED for buying a house is affected by the percentage of income needed to purchase it. For most people buying a house is the most expensive purchase of a lifetime. Therefore, it takes a large percentage of income so consumers will be very responsive/sensitive to price changes, that is the PED for housing is likely to be high (elastic – where $PED > 1$). For example, if the price of a house increased by 10 per cent one might expect the quantity demanded to fall by greater than 10 per cent because houses take up a large proportion of household income, so a small percentage increase in price makes it less affordable for more people. For this reason the PED is high, that is, price elastic. Award 1 mark for a definition of price elasticity of demand. Award 1 mark for a factor which contributes to the elasticity of demand of housing. Award 1 mark for the explanation of how the factor contributes to the elasticity of demand of housing. VCAA Examination Report note: Some students had difficulty demonstrating an understanding of elasticity of demand in their explanations. While many students were able to select a factor that likely determined the elasticity of the housing market (either elastic or inelastic), such as the proportion of income or whether a house is a necessity, many neglected to define elasticity (the responsiveness of the quantity of a product demanded given a change in its price) or show an understanding of the concept in their explanations.
3a	3	The nature of a perfectly competitive market is one where no buyer or seller has the capacity to be a price maker (i.e. no individual firm has market power). This is a consequence of the existence of a number of hypothetical conditions or characteristics, such as a large number of sellers fighting for market share and the existence of homogenous products that prevents sellers from differentiating their product from those of competitors. Other

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		conditions include perfect information, mobility of resources and no barriers to entry or exit which all help to maintain downward pressure on prices. Award 1 mark for explanation of the nature of a perfectly competitive market. Award 2 marks for explanation of the conditions for a perfectly competitive market – students must refer to a minimum of two conditions. VCAA Assessment Report note: Full marks were awarded to students who were able to identify and explain some of the key conditions required for the existence of a perfectly competitive market (e.g. many buyers and sellers, homogeneous products, free entry and exit, and perfect information) and then connect these to the nature of the market (e.g. the market will be characterised by the existence of relatively low prices; no individual firm possesses market power; productive/technical efficiency businesses is likely to be high; and/or consumer wants and needs are likely to be maximised). The simple listing of the conditions or characteristics of perfectly competitive markets was insufficient to achieve full marks.
3b	5	In a competitive market, an increase in demand for a product leads to upward pressure on its price compared to other products, such as the price of a substitute. This is due to the creation of a shortage in the market which causes producers to raise prices in order to eliminate the shortage. This sends a signal to the producers that higher profits can be made by producing this particular product and they then allocate more resources, including labour and capital, to its production. For example, during 2020 the demand for facemasks increased relative to other products, which encouraged producers to allocate more resources to the production of facemasks. The change in relative prices and the ability for competitive markets to adjust can improve living standards because consumers' demands will readily be met. This means that markets will only produce the goods and services that consumers want, and changes in relative prices are an important part of this process, helping to ensure that allocative efficiency is achieved.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		Award 1 mark for explanation of how an increase in demand can change relative prices. Award 2 marks for explanation of how the change in relative prices can influence resource allocation. Award 2 marks for explanation of how the change in relative prices can influence living standards. VCAA Assessment Report note: Students who performed well on this question demonstrated a clear understanding of the meaning and importance of relative prices in the context of the question. They then clarified how the change in relative prices ultimately sends important signals to producers/consumers and explained how this causes resources to move from the production of one good to another. High-quality responses also included relevant examples, such as the increased demand and relative price of hand sanitisers and/or face masks during the COVID-19 pandemic. The highest-scoring responses highlighted that society can be better off when resources are able to flow into the production of those goods and services demanded by consumers (or society more generally), such that consumer satisfaction can be maximised and allocative efficiency is more likely to be achieved. Understandably, a number of students assumed that the question referred to perfectly competitive markets, and unnecessarily repeated some of the conditions/characteristics that were covered in Question 4a. In some cases, this emphasis on perfectly competitive markets caused some students to focus on the increased supply that occurs in the long run (i.e. supply curve shifting to the right) as there are new entrants into the market, which forces the price back towards its previous equilibrium level. While marks could be awarded for this approach, it was typically not handled well by students, with many forgetting to address how it influences resource allocation. Many students struggled to make the necessary connection or link to living standards, limiting their response to how a producer or a consumer might be advantaged or disadvantaged by the changing market conditions. In addition, a number of students attempted to link the increased demand for one particular good to a lower rate of national unemployment, and then discussed the implications for both material and non-material living standards. This approach was problematic because, in the context of competitive markets, it ignores the fact that an increase in the

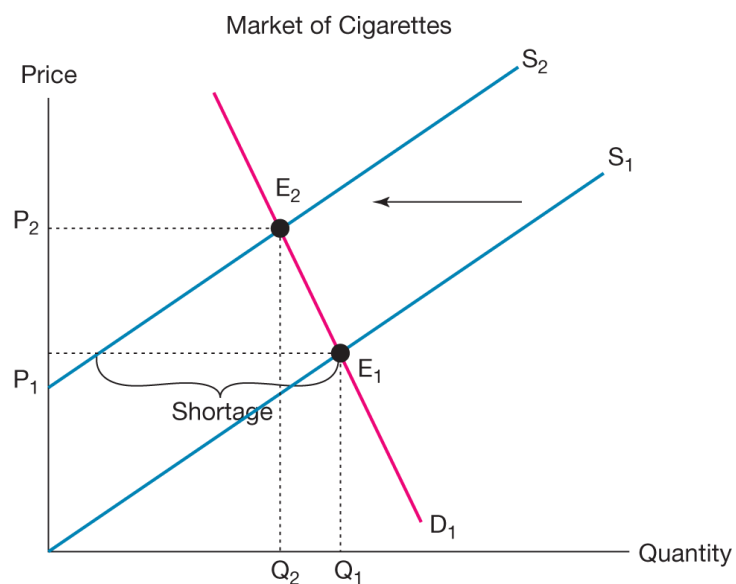
Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		demand for (and relative price of) one product means that the relative price for another product is lower, which can result from a lower demand for (and production of) that other product. The net overall impact on production and employment can therefore be ambiguous.
3c	4	One weakness is that one market cannot always capture the social costs relating to a transaction between two economic agents, meaning a cost is imposed on a third economic agent not involved in the exchange. This is referred to as a negative externality and includes events such as secondhand smoke from the consumption of cigarettes. This results in a market failure where living standards are not maximised due to the overproduction of goods and services containing social costs that are not reflected in the price. One strength is the comparably optimal level of dynamic efficiency goods and services have, relative to a centrally planned economy. Because resources are allocated via price signals, changing tastes and preferences of consumers (needs and wants) are quickly reflected by a change in the allocation of resources, which helps to ensure that allocative efficiency is achieved. Award 2 marks for description of the strength of using the market to allocate resources. Award 2 marks for description of the weakness of using the market to allocate resources. VCAA Assessment Report note: This question required students to identify and describe one strength and one weakness associated with the use of markets to allocate resources. The best performing students were those who demonstrated an understanding of why/how markets are particularly effective at allocating resources (e.g. the ability to satisfy consumer wants/needs and the achievement of allocative efficiency) or the beneficial market outcomes that are likely to exist in a more 'competitive' market, such as higher levels of productive/technical efficiency and lower prices. Many students, however, were unable to achieve full marks because they simply described (again in some cases) how the market allocates resources.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		Students were expected to draw on their understanding of market failure and how ‘unregulated’ markets lead to an inefficient allocation of resources or an allocation of the nation’s resources that is suboptimal from a societal point of view. Many students mistakenly stated that a weakness of markets is that shortages and surpluses occur, not appreciating that shortages/surpluses are a natural feature of markets that play a pivotal role in markets transitioning to a new equilibrium.

3d

6

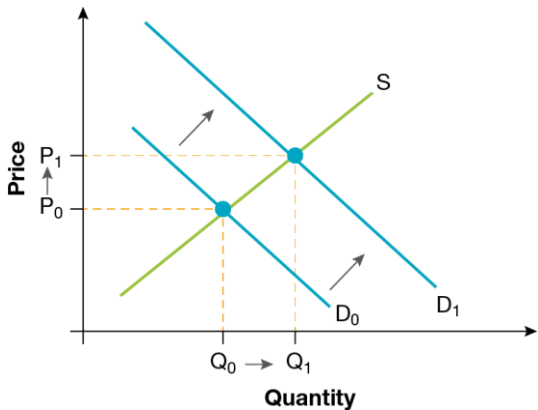
Cigarettes have negative externalities in consumption, as they impose social costs such as increased cancer and other health costs, as well as passive smoking when consumed. This reduces society's overall living standards, resulting in a market failure as there will be an overallocation of resources into the production of cigarettes. To combat this, the government introduced an excise tax (levied on cigarette producers) and has been increasing it every year. This has increased cigarette production costs, making suppliers less willing to supply cigarettes, shifting supply to the left from S_1 to S_2 . This causes a shortage at the equilibrium price (P_1) causing prices to be raised from P_1 to P_2 . This causes supply to expand, but more importantly it causes demand to contract along the demand curve as consumers are deterred by the higher price. This results in a new equilibrium price and quantity occurring at P_2 and Q_2 , with the lower quantity reflecting the intent of the government. Fewer cigarettes are produced and consumed which means that resources such as labour and capital are allocated away from cigarette production and the nation achieves a more socially optimal allocation of resources. The government has therefore been able to internalise the externality by forcing producers and consumers to take into account the third-party social costs related to cigarette consumption.



	Award 3 marks for use of the demand and supply diagram. Diagram must be fully labelled and show the changes in demand and supply and price due to government intervention. Award 1 mark for explanation of a market failure. Award 2 marks for explanation of how government intervention will correct the identified market failure with reference to the diagram. VCAA Assessment Report note: Generally, the quality of a student response within this question was strongly linked to the market failure that was selected. The highest-scoring responses began by briefly describing the nature of the market failure in question. They then clearly explained how the government can intervene, through the use of measures such as taxes and subsidies, to reallocate resources across the economy so that a more optimal allocation of resources results (i.e. one where we are closer to achieving allocative efficiency). In the context of market failures and the use of demand and supply diagrams, the most straightforward market failures to apply within this question were merit goods and/or positive/negative externalities in production or consumption. This is because the use of subsidies and indirect taxes (e.g. excise on tobacco and alcohol) could readily be illustrated via the shifting of supply and/or demand curves. Students who focused on other market failures – such as public goods, common access resources and asymmetric information – found it challenging to illustrate their response through the use of a demand and supply diagram. Common errors included: • elaborating on the nature of a market failure at the expense of providing an adequate explanation of how the government could correct the market failure • including a diagram but making no attempt to illustrate the response with reference to the diagram, or including an explanation inconsistent with the diagram: for example, explaining that consumer subsidies could be
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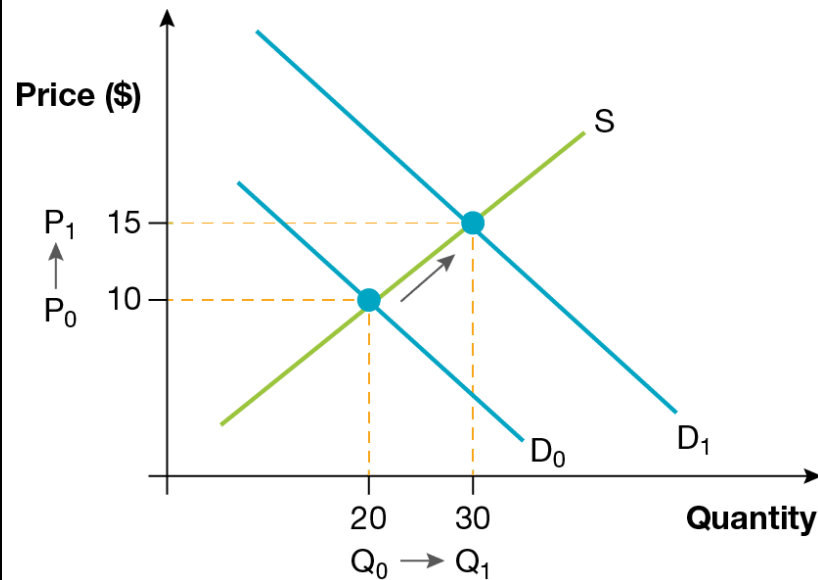
Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		used to increase the allocation of resources to the consumption and production of goods containing positive externalities, but then including a diagram that illustrated the implementation of a producer subsidy • spending excessive time describing the dynamics of adjustment from one equilibrium point to another and insufficient time focusing on the X axis (i.e. the quantity produced) and how the government initiative addresses the over- or under-allocation of resources to the production of that good or service that previously existed • using the appropriate example of indirect taxes imposed on those goods containing negative externalities in consumption (such as cigarettes and alcohol) but shifting the demand curve to the left when attempting to explain how the excise tax causes lower demand and lower production volumes • confusing public goods with merit goods or goods with positive externalities in consumption and/or production, such as public transport and education (the use of public goods was problematic when illustrating with a demand and supply diagram because public goods do not have a 'market price') • giving an unclear explanation of 'price controls' by the government and how these could be used to correct a market failure, saying things like price ceilings could be used to restrict production of goods with negative externalities or price floors could be used to increase production of merit goods (students should remember that price ceilings/floors are primarily used by governments to protect incomes of producers or prices for consumers, rather than used to address the market failures listed in the study design) • inappropriately using an AD/AS diagram to illustrate their response.
4a	3	Allocative efficiency occurs when resources are used to produce the combination of goods and services that best satisfies society's needs and wants, so that society's wellbeing is maximised. Dynamic efficiency refers to the speed at which resources are reallocated from one area of production to another in response to a change in consumer preferences or tastes.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		Dynamic efficiency promotes the achievement of allocative efficiency and it involves improving allocative efficiency over time. Award 1 mark for a correct definition of allocative efficiency. Award 1 mark for a correct definition of dynamic efficiency. Award 1 mark for showing explicit difference between allocative efficiency and dynamic efficiency. VCAA Examination Report note: Most students were able to indicate an understanding of both allocative and dynamic efficiency by providing accurate definitions of these terms. However, many students did not complete the question by providing a distinguishing feature of each type of efficiency. This meant that many students could not score full marks.
4b	4	A complementary good is a good that is used in conjunction or together with another good, that is the goods are generally consumed together, for example, bread and butter, tea and sugar, strawberries and cream.

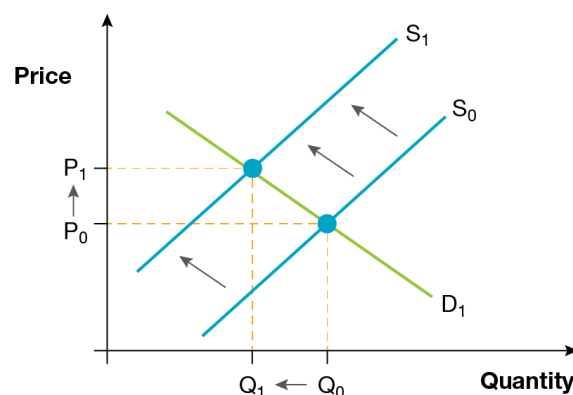
Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		 A change in the price of a complementary good is a non-price demand factor and, therefore, will cause a shift of the entire demand curve for the good for which it is a complement. A decrease in the price of a complement (butter) may lead to an increase in the demand for a good (bread). An increase in demand will shift the demand curve to the right (D_0 to D_1). The initial increase in demand results in a shortage at the original price. Suppliers may increase the price and/or customers compete for the remaining available stock. As the price rises (P_0 to P_1), producers have a profit incentive to produce more, resulting in an expansion in supply (Q_0 to Q_1) and a higher equilibrium price (P_1) and quantity traded (Q_1). Award 1 mark for a correct explanation of a complement. Award 2 marks for an accurate diagram. Award 1 mark for an explanation of the diagram. VCAA Examination Report note: The majority of students demonstrated a very good understanding of complements. The highest-scoring responses provided a clear definition and an example to illustrate the explanation.

4c

4



A movement along a supply curve can occur as a result of a change in price. When there is a change in the price of a good, for example, the price increases from \$10 to \$15, this will result in suppliers being more willing to supply (profit incentive) and there will be an upward movement along the supply curve (expansion in supply) – quantity supplied moves from 20 to 30.



A shift of the supply curve results from any factor other than price, which affects supply. For example, less favourable climatic conditions result in a shift of the supply curve from S_0 to S_1 , in this case to the left as less will be supplied at each given price.

Therefore, a change in price of the good results in a movement along the supply curve, while a change in a factor other than price results in a shift of the supply curve.

Award 1 mark for a correct diagram showing movement along the supply curve.

Award 1 mark for a correct explanation of movement along the supply curve.

Award 1 mark for a correct diagram showing a shift of the supply curve.

Award 1 mark for a correct explanation of a shift of the supply curve.

VCAA Examination Report note:

This question was generally well answered by the majority of students. In order to achieve full marks, however, students were expected to link the movement along the supply curve with changes in price.

4d	3	The following is an example of a possible response using a negative externality: An example of a negative externality is carbon dioxide emissions from production of electricity from coal-fired power stations. This is a factor resulting in climate change. The costs of this negative externality, which results in climate change, is not internalised by producers. Therefore, an overallocation of resources towards the use of coal in electricity production occurred with the costs associated with this production not borne by producers or consumers. The following is an example of a possible response using asymmetric information: Asymmetric information occurs when one party to an economic transaction possesses greater material knowledge than the other party; that is, this type of market failure exists where one party has greater information than the other in an economic exchange. For example, in the used car market, buyers may not be privy to the same information as the sellers, as the seller knows far more about the history of the car than the buyer does. The seller may well be selling the car because of a fault that will soon require fixing. Without a very thorough check of the car by the buyer, the buyer will likely be unaware that the used car may break down soon after it is purchased, which will require some expensive maintenance. The buyer may then pay a higher price for the used car than they otherwise would have, if they had known about the fault. This means asymmetric information in the used car market leads to an overallocation of resources to the used car market, and that the market fails to deliver outcomes that are in the best interests of society. Award 1 mark for a correct explanation of either externalities or asymmetric information. Award 1 mark for a correct explanation of market failure. Award 1 mark for demonstrating why externalities or asymmetric information represents a market failure. VCAA Examination Report note: Many students were too simplistic or brief in their explanations of how the existence of externalities or asymmetric information results in market failure. Many students were unable to explain that when externalities or asymmetric
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Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		information exists it is necessary to intervene in the market to change the allocation of resources so that wellbeing is improved. In many cases, students used simplistic and general language rather than specific economics language. For example, students wrote in their explanation of the ideas of markets not working efficiently, that this caused 'bad outcomes for other people' or 'negative effects on other people' rather than using economics language such as 'costs to third parties' and 'allocation of resources that does not maximise welfare' because of 'overproduction/overconsumption' of goods and services that produce negative externalities. This lack of attention to precise language and accurate terminology meant that a number of students could not score full marks for this question. Students who chose to explain externalities could choose between an explanation related to a negative externality or to a positive externality. One source of market failure is externalities. An externality arises when the production or consumption of a good or service has an effect, whether positive (confers a benefit) or negative (imposes a cost), upon a third party. Externalities affect third parties – that is, individuals or groups outside the market. In other words, those who are not involved in, or a part of, the market that causes them. Because those involved in the market do not take into account the externalities that arise from their actions, the outcome is seen as inefficient from society's standpoint.
4e	3	The government can intervene in the market through the implementation of a range of policies, including indirect taxes, subsidies, advertising, regulation and direct provision in order to achieve an efficient (or socially optimal) allocation of resources. Negative externalities negatively impact society's wellbeing; therefore, the government seeks to discourage them. Carbon dioxide emissions from the production of electricity from coal-fired power stations are considered a factor resulting in climate change, with the costs of this negative externality not internalised by producers. The Australian Government briefly implemented a carbon tax on producers designed to internalise the external costs associated

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		with the use of fossil fuels. This increased the costs of production for industries using fossil fuels and influenced a change in the allocation of resources as electricity prices increased and consumption decreased. Government action for asymmetric information to protect consumers from purchasing poor-quality used cars include mandatory three-month warranties. This protects consumers from being sold a poor-quality used car. Thus, if a poor-quality car is bought, the seller would be required to repair the vehicle or give a refund if the car is returned. This then allows the consumer to maximise their utility, and ensures an efficient allocation of resources. Award 1 mark for suggesting an appropriate government action. Award 1 mark for explaining the operation of the government action. Award 1 mark for demonstrating how the action addresses the market failure. VCAA Examination Report note: Higher-scoring responses to this question discussed addressing externalities. Many of the students who selected asymmetric information (in Question 1d.) started with the idea of government legislation to force suppliers to reveal more information about the product, but did not seem to know how to link this back to addressing market failure and changing resource allocation so wellbeing is improved.
5a	2	One feature of a perfectly competitive market is that there are many buyers and sellers. This creates a high level of competition between sellers, forcing firms to produce at the lowest possible price in order to sell their products. This encourages a high level of technical efficiency where resources are put to their most productive use. Award 1 mark for a brief explanation of a characteristic of a competitive market. Award 1 mark for a link to efficiency.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		VCAA Examination Report note: Higher-scoring responses explained how one or more characteristics of competitive markets affected the efficiency of resource allocation, linking their explanation to a particular type of efficiency. Lower-scoring responses struggled to link an aspect of a competitive market to the impact on efficiency of resource allocation.
5b	3	Public goods are those goods which are both non-excludable and non-rivalrous in consumption (i.e. street lights), whereas common access resources are those goods which are also non-excludable but are rivalrous (i.e. fish in the ocean). By non-excludable we mean that access to these goods cannot be restricted. In the case of street lights and fish in the sea, it is difficult if not impossible to stop someone consuming these goods. But the difference is around whether the good is rivalrous or not. That is, can the product be consumed by multiple people at once? In the case of common access goods, they cannot, whereas public goods can. If a person catches a fish, no one else can catch it, whereas everyone can consume street lights at the same time. Award 1 mark for an accurate definition of a public good. Award 1 mark for an accurate definition of common access resources. Award 1 mark for clearly showing the difference. (NB: students should not simply repeat their definitions to show difference.) VCAA Examination Report note: Higher-scoring responses to this question accurately defined public goods and common access resources and distinguished between these terms by pointing out a difference between them – for example, public goods are non-rivalrous in consumption and common access resources are rivalrous. Some students were unable to score full marks because they used terms such as ‘non-excludable’ or ‘rivalrous’ without explaining these terms and thus did not demonstrate a full understanding of these concepts.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		There was also evidence of some confused thinking in some responses, and these responses could not score high marks. For example, some students mixed up the meanings of non-excludability and non-rivalrous. In other cases, students made inaccurate selections of examples related to public goods and/or common access resources – for instance, many students stated that hospitals and schools were examples of public goods, not understanding the non-rivalrous concept. Also, some students talked about ‘over-allocating’ resources to common access resources rather than saying that resources will be over-consumed.

5c	3	The Australian government intervenes in the labour market as it does not believe a freely operating labour market will provide lower income workers with an income high enough to allow them to live with a dignified standard of living. As a result, the government operates a 'minimum wage' or 'price floor' in the labour market; this means wages are unable to fall below this set price. However, sometimes the minimum wage is seen to operating above the equilibrium and may result in an oversupply of labour. Business may be unwilling and unable to employ people at higher wages. This may result in higher unemployment and an inefficient use of labour resources. Award 1 mark for an appropriate example of government intervention. Award 1 mark for an explanation of the intervention. Award 1 mark for demonstrating a decrease in efficiency resulting from the intervention. VCAA Examination Report note: Knowledge of government intervention in markets and how this may unintentionally lead to a decrease in the efficiency of resource allocation is part of the key knowledge in the study design. Students were required to describe a situation where government intervention failed to improve the allocation of resources or actually made the allocation of resources less efficient when compared to the free (unregulated) market outcome. Students used a range of appropriate examples of government intervention in response to this question. These included the implementation of the National Broadband Network, the setting of price floors/ceilings such as the minimum wage, energy policies, protectionist policies such as the use of tariffs, subsidies, unfair dismissal laws, and housing market policies such as negative gearing and first home buyer grants. Many students did not score full marks on this question, and this was often because the student did not make the final link to reduced efficiency. They were able to tell a story about an unintended consequence of government intervention, but then made no explicit link to a decrease in a type of efficiency, thus not completing all the requirements of the question.
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Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		A popular example selected by students was the setting of the minimum wage (a price floor). Higher-scoring responses described how the government intervention was implemented and then explained one way it unintentionally led to a decrease in resource allocation.
6a		
6b	2	Responses needed to cover the following points: - the equilibrium price is \$10 per punnet - the quantity traded is 80 000 punnets of strawberries - the equilibrium is defined as a situation in the market where the amount supplied is equal to the amount demanded and there is no shortage or surplus. Award 1 mark for explaining of the term equilibrium. Award 1 mark for correctly identifying equilibrium at \$10 and 80 000 punnets. VCAA Examination Report note: Most students were awarded full marks for this question.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>																																
6c	2	Market for strawberries <table border="1"> <caption>Data points from the Market for strawberries graph</caption> <thead> <tr> <th>Curve</th> <th>Quantity (1,000)</th> <th>Price (\$)</th> </tr> </thead> <tbody> <tr> <td rowspan="5">Demand (D)</td> <td>30</td> <td>\$5</td> </tr> <tr> <td>50</td> <td>\$12</td> </tr> <tr> <td>80</td> <td>\$10</td> </tr> <tr> <td>120</td> <td>\$8</td> </tr> <tr> <td>140</td> <td>\$5</td> </tr> <tr> <td rowspan="4">Supply (S1)</td> <td>30</td> <td>\$5</td> </tr> <tr> <td>50</td> <td>\$8</td> </tr> <tr> <td>90</td> <td>\$10</td> </tr> <tr> <td>110</td> <td>\$14</td> </tr> <tr> <td rowspan="4">Supply (S2)</td> <td>30</td> <td>\$14</td> </tr> <tr> <td>50</td> <td>\$12</td> </tr> <tr> <td>60</td> <td>\$12</td> </tr> <tr> <td>80</td> <td>\$10</td> </tr> </tbody> </table> Award 1 mark for shifting the supply curve left. Award 1 mark for showing higher equilibrium price but lower equilibrium quantity. VCAA Examination Report note: This question was handled well by most students.	Curve	Quantity (1,000)	Price (\$)	Demand (D)	30	\$5	50	\$12	80	\$10	120	\$8	140	\$5	Supply (S1)	30	\$5	50	\$8	90	\$10	110	\$14	Supply (S2)	30	\$14	50	\$12	60	\$12	80	\$10
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Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
6d	2	The unfavourable supply-side conditions (due to a period of unseasonably cold weather) lead to a decrease in the supply of strawberries at each and every price level (shown as a shift of the whole supply curve to the left). At the original equilibrium price of \$10 per punnet a shortage occurs where the quantity supplied is less than the quantity demanded. This places upward pressure on the price, resulting in a contraction in the quantity demanded and an expansion in the quantity supplied. In time, the market will come to rest at a new higher equilibrium price and lower quantity traded (approximately \$12.50 on the sketched graph). Award 1 mark for identifying that the decrease in supply leads to a shortage. Award 1 mark for showing how a shortage will lead to higher prices, which will contract demand and expand supply, leading to a higher equilibrium price but a lower equilibrium quantity. VCAA Examination Report note: While most students could show the movement that occurred in the supply curve in Question 2c. some struggled to adequately explain the adjustment to the equilibrium price and quantity.
7a	2	Perfectly competitive markets have a large number of buyers and sellers who act independently. They are regarded as price takers because they are too small to influence prices in the market, and they accept the prices determined by the interaction of demand and supply. Perfectly competitive markets have low barriers to entry. The set-up costs for a business are minimal, so if profit-making opportunities increase in an industry, it is easy for new firms to enter the market. Award 1 mark for each of the characteristics outlined. VCAA Examiner's report: This question was well handled by the majority of students. Those who did not score full marks needed to ensure that they outlined the characteristics of a perfectly competitive market rather than simply listing two characteristics.

7b	4	Exposure to competition in a perfectly competitive market is much higher compared to an oligopoly (which is characterised by a small number of firms/sellers who have a high market share and where there are often significant barriers to entry for other firms). A competitive market is generally seen as the market structure that leads to the most efficient allocation of resources. Many sellers are competing for the customers within the market and so aim to sell their products at a competitive (lowest) price because the products they sell are homogeneous. This forces them to constantly seek productivity improvements. They aim to boost technical efficiency (maximising outputs with the available resources). This market structure operates more efficiently than an oligopoly. With fewer sellers and difficulties for new firms to enter the market, there is less need for the existing sellers to allocate resources efficiently as the lack of competition means less price competitiveness among the sellers. Firms are able to produce their product without worrying about new firms entering the market and undercutting prices because they are more efficient. Oligopolistic firms may also concentrate on the development of brand loyalty. Resources could be wasted trying to convince consumers to switch from one brand to another. This may lead to higher prices. Concentrated markets also reduce the level of competitiveness, so there may be less incentive for these firms to seek productivity improvements, which would lower prices for consumers. Award 1 mark for a definition of efficient allocation of resources. Award 1 mark for characteristics of perfect and oligopolistic markets Award 1 mark for an explanation of how a perfectly competitive market achieves this. Award 1 mark for an explanation of why an oligopolistic market fails to achieve this. VCAA Examiner's Report: A number of students struggled to answer this question correctly. While most students agreed that a perfectly competitive market is more likely to allocate resources efficiently when compared to an oligopolistic market, some students were not able to accurately explain how a perfectly competitive market allocates resources. They were also unable to clearly explain how resources are less likely to be allocated efficiently under an oligopolistic market structure. A number of other students appeared to confuse an oligopoly market structure with monopolistic
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Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		competition. Often answers that scored high marks started with (or included) a definition of efficient allocation, and this definition was used to focus and structure the answer.
7c	2	One of the government's objectives is to reduce fluctuations in the business cycle, aiming to smooth the rate of economic growth in Australia from year to year, thus avoiding the destabilising effects of excessive rates of inflation or cyclical unemployment. For example, if the economy is showing signs of slipping into recession and private sector demand is 'collapsing', then the government may use budgetary policy in a countercyclical way, increasing government spending to avoid the problems associated with the recession such as increasing levels of cyclical unemployment and deteriorating living standards. Award 2 marks for an outline of thereason for the need to stabilise the level of economic activity. VCAA Examiner's Report This proved to be a challenging question for a large number of students. Most students seemed to think that government intervention is because of market failure rather than realising that the question asked about why governments intervene to stabilise the level of economic activity.

7d	6	The following are examples of possible responses. Example 1 The new car market: Ford, Holden and Toyota ceased production of cars in Australia. Factors affecting this market that have led to the closedown of this market have included the relatively high costs of production (a supply factor) such as the relatively high wages paid to workers in Australian car manufacturing compared to other car manufacturing countries, which has negatively influenced the ability and willingness of producers to produce, so the car industry is largely shutting down. This market could have been considered to have an oligopolistic market structure and has tended to operate more freely since the reduction in tariffs over recent years. Now Australia's car tariffs are among the lowest in the world. Example 2 The housing market has experienced significant growth in Australia in recent years. One economic factor influencing this has been steady population growth, mostly due to immigration, increasing the demand for housing relative to the supply of homes and units. The housing market is a relatively competitive market where there is generally a large number of buyers and sellers. The government has intervened in the market to some degree, though often to stimulate spending and investment in housing with policies; for example, such as negative gearing and the First Home Owner Grant. These government policies have helped to increase demand for housing and hence pushed up house prices. Award 2 marks for a description of the market. Award 2 marks for a description of an economic factor influencing the market. Award 2 marks for a discussion of the level of market freedom found in this market. VCAA Examiner's Report Many students found this question challenging. They struggled to select a market (even though examples were listed in the question) and interpret what was meant by an economic factor or free operation. The highest-scoring answers were ones where students had thought through their choice of a market, and where they were then able to discuss an economic factor influencing the operation of the market and comment on the extent to which the market
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Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		operated freely. A wide range of markets was selected, including agricultural markets – examples included fruit and vegetables and dairy; a commodity market – examples included iron ore and coal; or retail market – examples included Uber, mobile phones, supermarkets, cars and housing.
8	2	Allocative efficiency is the desirable situation when resources are used to produce those goods and services that best maximise the overall satisfaction of society's needs and wants, while dynamic efficiency refers to the speed at which resources can be reallocated as needed to meet changing needs and choices of consumers.
9a	2	A free and purely competitive tobacco market would be likely to cause market failure because of the externality of health issues. The damage done by smoking creates a cost to the community that would not be reflected in the prices paid by consumers. An unregulated purely competitive tobacco market would have minimal government intervention, but would place a huge burden on governments providing or subsidising health and hospital services.
9b	2	 This higher excise tax may help alter the allocation of resources because it can be used to fund additional health services. If the excise actually works and reduces smoking in the longer term, an allocation of resources away from health services related to smoking-related issues may be possible.
9c	1	The PED for cigarettes is relatively inelastic, because smoking is addictive and habitual, so smokers will not respond to relatively small variations in price. If the purpose of the excise tax is to discourage smoking, it may not correct the market failure, because most smokers will not give up the habit.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
9d	5	Subsidising the coal industry — such government assistance, while maintaining jobs in the coal industry and expanding economic growth, clearly affects the medium- to long-term wellbeing of society. Subsidies to this industry encourage the production of dirty, high-carbon intensive fuels, the burning of which will lead to severe negative externalities, whether burnt here or overseas. It could be argued that the funds paid in subsidies could be better spent addressing climate change initiatives, both within Australia and in other nations to whom we sell our coal (representing an opportunity cost). Ultimately this represents market and government failure.

UNIT 3: AUSTRALIA'S LIVING STANDARDS

AOS 2: Domestic macroeconomic Goals

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2.2 ACTIVITIES

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	2	Standard of living is a concept used to indicate the general level of wellbeing. In other words, it refers to how well off our nation is overall. Both material and non-material aspects affect living standards.
2	2	Material standards of living relate to the level of economic wellbeing that can be measured by such things as the annual level of GDP per capita, incomes and consumption of goods and services. Non-material standards of living are value-based elements of human wellbeing that are unconnected with material possessions but affect the quality of lives. For example, happiness levels, self-fulfilment, low crime, freedom of speech and political freedom.
3	4	The other factors include: • Distribution of goods services and incomes – an uneven distribution may mean that some individuals gain most of the benefits of GDP growth, while others gain little or no benefit. The result would be greater inequality in society. • Rapid price rises for goods and services – inflation can erode the purchasing power of consumers. • Jobless or unemployment rate – loss of employment results in loss of income, reducing material living standards.
4	4	There can be conflicting relationships between material and non-material living standards; for example, a strong level of economic activity now may conflict with the availability of resources for future generations. There is a trade-off here, where progress in one area of wellbeing lowers standards in the other. The trade-off can take several forms: • Environmental trade-off — our materialism and greed for natural resources to make even more goods and services (which have raised material wellbeing to levels never before seen in human history) have also had grave consequences for the environment. Think of the serious pollution of rivers, land and oceans; climate change, greenhouse gases and erratic weather events; rising sea levels and the destruction of island communities and our coastal cities; mass migrations, tensions and war between countries over ownership of

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		natural resources; and the almost daily reports of toxic residues and chemicals in the air we breathe and the food we eat. • Health and social trade-off — as our material living standards have grown, aspects of non-material wellbeing have suffered. Leisure time has been eroded for many people as their work hours have increased. Family stresses have been aggravated by tension and less time to devote to home life. Rising incomes, a sedentary work style, the proliferation of digital devices and easy access to a wide variety of fast foods have contributed to serious obesity to such a degree that the average life expectancy of today's children may, for the first time, be lower than that of their parents. • Material trade-off — if the government were to introduce policies specifically designed to promote better non-material living standards, these measures could undermine national production and incomes, and hence lower our material living standards. Such policies might involve tightening government environmental controls (such as introducing a carbon tax or a carbon emissions trading scheme to make pollution costly and less attractive) or limiting working hours to raise leisure time and increase available family time. • Relationships can be compatible, for example the encouragement of tourism and the Arts can culturally enrich the quality of many lives. Other instances include: • Higher incomes can be used to extend life expectancy and reduce daily suffering from curable ailments. • Higher incomes can be directed to combating environmental damage and reducing pollution. • Higher incomes enable individuals to reduce their working hours and stress, and increase their leisure time.
5a	1	Improvement — income provides access to goods and services.
5b	1	Improvement in non-material wellbeing.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
5c	1	Improvement in potential economic growth but non-material issue of any harmful effects brought into question.
5d	1	Improvement — the increase in income provides access to goods and services.
5e	1	Improvement in non-material wellbeing by making use of long-term sustainable energy. May also result in less income spent on energy in the long-term.
5f	1	Improvement — the increase in income provides access to goods and services, although may affect family relationships.
6	4	Student responses will vary according to the article chosen.

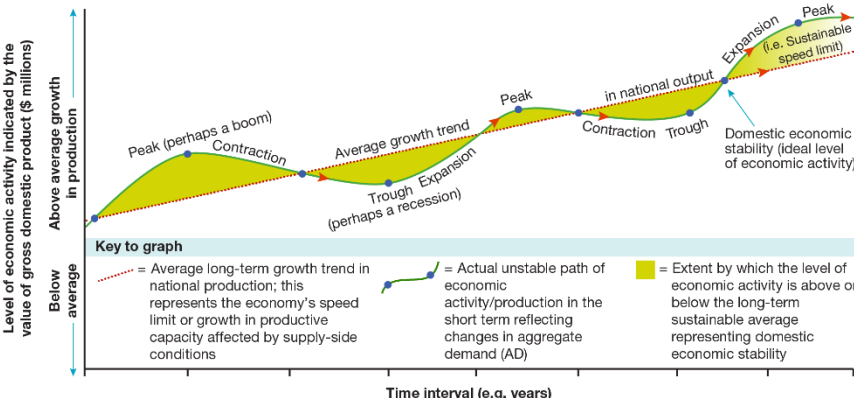
2.3 ACTIVITIES

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	2	Economic activity is the process of converting the scarce resources of the economy (land, labour and capital) into final goods and services that satisfy the needs and wants of society. Economic activity refers to the actions of consumers, firms and the government that generate the production of goods and services, employment, income and expenditure. At the macroeconomic level, economic activity is the total spending, production and employment in the economy. The level of economic activity refers to the pace or speed at which productive activity is occurring in the economy. The level of economic activity in the Australian economy is unstable because it fluctuates over a period of time, following a cyclical pattern. This is called the economic cycle: where the economy travels from a peak through a contraction to a trough, a recovery and back to a peak.
2	3	The speeding up or slowing down in the level of economic activity can directly affect material living standards in the following three ways: i. The volume and quality of goods and services produced and available to the population in order to help satisfy its needs and wants may increase or decrease. ii. The level of employment opportunities, the number of jobs and the unemployment rate can improve or deteriorate. iii. The level of average incomes, prices, purchasing power and consumption levels per person can move up or down.
3	2	The level of economic activity can affect non-material living standards by impacting upon ecological sustainability, urban congestion, leisure time and family relationships.
4	2	Chain volume GDP (or real GDP) refers to the market value of goods and services produced by Australia, adjusted to remove the effect on the value of national production caused by changes in prices against a reference year. The ABS

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		has used the chain volume index since 1998. It is a complex and technical estimation of Australia's volume of production. This method is used to make Australia consistent with some of the world's leading statistical agencies, because it provides a more accurate indication of changes in real output and expenditures than the traditional constant prices estimate of the gross domestic product. In simple terms, it involves using prices from the previous period and applying them to current period volumes, so that any increase in value must have occurred because of rising quantities rather than prices.
5	2	Economic activity is normally measured by chain volume gross domestic product (or real GDP). This measure accounts for variations in and between the production approach, the expenditure approach and the incomes approach.
6	2	A leading indicator, such as the business confidence index, seeks to predict where the economy is heading, while a lagging indicator, such as the unemployment rate, tells the reader where the level of economic activity has been some time ago. These indicators cannot tell us what the economy is doing right now because it takes time to collect and process data and/or respond to changes in economic activity. Leading indicators allow economic forecasts or predictions to be made about the likely future level of economic activity, whereas lagging indicators cannot do this — they can only tell us about what has occurred some time ago.
7	2	A rise in the level of economic activity would be accompanied by a rise in the amount of goods and services now available for households to purchase across the Australian economy, resulting in an increase in the material standard of living. This would be seen in an increase in GDP per capita.

2.4 ACTIVITIES

Question	Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	2	The business cycle (or economic cycle) is a fluctuating pattern of economic activity. The term refers to the wave-like ups (recovery and boom) and downs (slowdown or recession) in a nation's level of production or economic activity.
2	5	There are four phases of the economic or business cycle. 1. The expansionary or recovery phase is where there is an expansion in the level of economic activity or production in the economy (e.g. 2009–10 to 2011–12). Spending in the economy starts to increase, causing an increase in the production of goods and services and the employment of resources. The level of national income is increasing. Lag unemployment starts to fall and some inflationary pressures may occur (the level of prices in the economy start to rise). 2. The peak or boom phase of the business cycle occurs where the economy is operating at its productive capacity (e.g. possibly 2007–08). There is full employment of resources and the economy is unable to increase the production of goods and services in the short-term. The economy experiences inflationary pressures from a shortage of goods and services, and costs of production rise because of a scarcity of resources. 3. The slowdown or contraction in economic activity normally follows a peak or boom (e.g. 2008–09 and 2011–12). Spending in the economy starts to decrease and the level of production as measured by GDP slows or falls, resulting in a rise in unemployment and an easing of inflationary pressures. 4. The trough phase of the business cycle occurs where the level of economic activity or the business cycle is at its lowest point (e.g. 2009 or 2018–19). A trough may be a situation where there is a minor slowdown in the level of economic activity or economic growth as measured by GDP, or it may be more severe as indicated by a decrease in the national output. Where the national output as measured by the GDP is negative for two consecutive quarters, the economy is said to be experiencing a recession. If the recession is even more severe, the economy may experience a depression. Recessions and depressions are characterised by negative growth in production, low levels

Question	Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		of spending and high levels of unemployment. Some economists may measure a recession or depression by the rate of unemployment as well as the negative GDP growth.  Notice that the level of economic activity passes through various cycle phases — peak, contraction, trough, expansion, etc. peaks and troughs represent upper and lower turning points in the trade cycle. It can also be seen that strength, severity and duration of the 'contractions' and 'expansions' may vary considerably. Sometimes the contraction is severe, leading to a deep trough in production and hence cuts in employment, while at other times the trough is more shallow. Sometimes the expansion is strong, leading to high peaks in production and inflation, while at other times the peak is lower.
3	3	A boom is where the level of economic activity or business cycle is at its peak. The characteristics of a boom in the economy are high levels of spending, production and employment of resources. The economy is experiencing strong economic growth, full employment of resources, and a shortage of goods and services that is contributing to inflationary pressure in the economy. A recession in technical terms is where the economy is in a trough and experiences negative growth in production as measured by the GDP for two consecutive quarters. GDP will be at its lowest point (or even a negative rate), unemployment will be at its highest point and inflation will be at its lowest point (or even negative).
4	2	Domestic economic stability is a situation in the economy where the fluctuations in activity are minimised. The level of spending in the economy ensures a full employment level of production without inflationary pressures. The

Question	Marks	Answer/Exemplary response with <i>marking guide instruction</i>			
		economy is not operating at the extremes of a peak (boom) or a recession. The economy ideally is operating at a point on the long-term trend line.			
5a	4	Different features in the economic cycle	Boom	Recession	Domestic economic stability
		i. Level of AD	At its peak	At its lowest	Ideal level of economic activity; steady rate of AD
		ii. Level of GDP	GDP has reached its maximum; that is, an annual rise of 3–3.5 per cent. At this point, GDP growth will start to slow.	There is a significant slowdown in GDP growth or even a decline. Technically the growth in GDP is negative for two consecutive quarters (two three-month periods).	Strong and sustainable rate of GDP growth at 3–3.5 per cent.
		iii. Level of inflation	The economy is operating at its productive or beyond productive capacity, causing demand–pull and cost–push inflationary pressures. The CPI may	The economy is operating well below its productive capacity so there would be no pressure on prices to rise. There may even be	The economy is experiencing a stable level of economic activity with some inflation, but at a level within the RBA target range of 2–3 per cent.

Question	Marks	Answer/Exemplary response with <i>marking guide instruction</i>			
			rise quickly, by more than 3 per cent a year.	deflation (a decrease in the level of prices).	
		iv. Level of unemployment	Low levels of unemployment, at 3–4 per cent	There is underutilisation of the productive capacity and high levels of unemployment above 5 per cent caused by the cyclical downturn in the economy.	The stable level of economic activity would result in stable employment at a near full employment level — unemployment around 4.5–5 per cent. The level of unemployment would be compatible with a low rate of inflation.
		v. Material living standards	Living standards at a high level for the majority of the population	Living standards deteriorate as many workers lose their jobs, and wages stagnate.	Material living standards gradually increase as employment at near full employment level.
5b	2	Stagflation is a period of slow GDP growth (stagnation) along with high unemployment and rapid inflation. This unique situation cannot be illustrated on the business cycle diagram because the diagram assumes that inflation and unemployment are opposite situations that cannot coexist.			

Question	Marks	Answer/Exemplary response with <i>marking guide instruction</i>
5c	2	Over the past two years Australia has been experiencing an expansionary phase of economic activity. During the initial stage of the COVID-19 pandemic, growth plummeted to –6% but has since recovered to be 3.6% in June 2022. At the same, inflation rose to 6.1% and unemployment fell to 3.5%, which all indicates an expansionary phase of economic activity.

2.5 ACTIVITIES

Question	Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	4	A MACROECONOMIC CIRCULAR FLOW MODEL OF THE AUSTRALIAN ECONOMY Flow 1: Flow of productive natural, capital and labour resources supplied (from Household sector to Business sector) Flow 2: Flow of incomes to owners selling resources (from Business sector to Household sector) Flow 3: Flow of total spending on Australian production = aggregate demand = $C + I + G + X - M$ (from Household sector to Business sector) Flow 4: Flow of final goods and services supplied or produced (i.e. GDP) (from Business sector to Household sector) Household sector (Left): Savings (S), Taxes (T), Import spending (M). Income dispensed as ... Business sector (Right): Investment spending (I), Government spending (G), Export spending (X). Financial sector (Middle): Savings (S) to Investment spending (I) Government sector (Middle): Taxes (T) to Government spending (G) Overseas sector (Middle): Import spending (M) to Export spending (X) Three leakages from domestic spending = $S + T + M$ (slow AD) Three injections into domestic spending = $I + G + X$ (boost AD)

2	5	The circular flow model is a macroeconomic model that helps us to understand how the Australian economy works and how its different parts are interrelated. The five sectors shown in the circular flow model are the household sector, the business sector, the financial sector, the government sector and the overseas sector. a. The household sector comprises all the members of the Australian population. This sector owns the resources of the economy (land, labour and capital) and supplies them to the business sector in return for payment of income. The household sector also includes consumers. The purpose of the economy is to produce goods and services to satisfy the needs and wants of the population or the household sector. The income generated from the supply of resources is used to purchase the goods and services. b. The business sector or firms in the economy are motivated by profit, and produce the goods and services to satisfy the needs and wants of the household sector. This sector is made up of small, medium and large firms in the economy. The business sector purchases the resources or factors of production from the household sector (derived demand) to produce the goods and services. c. The financial sector is made up of the banks, building societies, stock exchange, credit unions and finance companies. These organisations borrow the household savings (S) at a rate of interest, which are a leakage from the circular flow, and lend these savings at a higher rate of interest to firms to add to their stocks of capital goods. This is called investment (I) and is an injection in spending in the circular flow model. d. The government sector provides goods and services not provided by the marketplace or not provided in sufficient quantities. To provide goods and services such as schools, hospitals, roads and defence, the government taxes (T) the household sector. Tax is a leakage as it reduces household spending. Taxes provide resources so the government can provide the goods and services. Government spending in the economy (G) is an injection because it increases spending in the economy. e. The overseas sector is made up of goods and services that Australia buys from overseas, which are called imports (M), and the goods and services that Australia sells overseas, which are called exports (X). The export sector employs resources in order to produce the goods and services.
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3	3	There are four key flows in the five-sector circular flow model. A flow is an economic variable that is measured over a period of time. a. Flow 1 is the flow of resources from the household sector to the business sector. The resources are the factors of production and include land, labour and capital. These resources are used by the business sector to produce goods and services. b. Flow 2 is the flow of income from the business sector to the household sector for their contribution to production. Individuals selling their labour to the business sector are paid a wage or a salary. Interest is paid for lending capital and rent is paid for the use of land. The income received from contributing to the production of goods and services is called factor income, and the payment should equal the contribution to production. For example, if labour contributes \$10 worth of production then the factor income should equal \$10. The total flow of income to the household sector is called the national income and it should be equal in value to the total contribution to production of the household sector. The national income (NY) can be defined as the total income paid to the factors of production for their contribution to production. c. Flow 3 is the expenditure flow. The total expenditure on the production in the economy is called aggregate demand and is generated from flow 2 (income flow). The household sector receives income. The household sector can save the income (S), pay tax to the government (T) or spend the income on imports (M). These all act as leakages from spending in the domestic economy as they are income that is not spent on domestically produced goods and services. Household spending in the economy is called private consumption spending (C) and comprises 60 per cent of total spending on domestically produced goods and services. The savings and tax leakages can become injections into spending in the economy if the government spends the taxes (G) and the business sector borrows the savings for investment (I). Both G and I increase the level of spending in the economy. If the overseas sector buys Australian exports, it acts as an injection to spending in the economy, while the purchase of imports by Australians acts as a leakage because the income is spent on overseas produced goods and services, not domestically produced goods and services. In summary, flow 3 represents the total value of expenditure on Australian-made goods and services. This is called aggregate expenditure or aggregate demand and can be symbolically represented as $AD = C + I + G + X - M$. Imports are
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Question	Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		deducted because they are goods and services not produced in Australia. Aggregate demand can be defined as the value of total spending on final goods and services produced in the Australian economy over a given period of time. d. Flow 4 is the flow of final goods and services supplied (GDP). It is the total value of final goods and services produced in the economy over a period of time.
4	3	In the short- to medium-term, the level of economic activity is determined by the change in the level of aggregate demand. If the level of aggregate demand increases due to an increase in injections ($I+G+X$) relative to leakages ($S+T+M$) the level of production, income and employment will increase. If leakages are greater than injections then the level of aggregate demand will fall, causing a decrease in the level of production, income and employment.
5	2	The productive capacity of the economy is the potential of the economy to produce goods and services. It determines the production possibility frontier of the economy. The productive capacity of the economy is determined by supply-side factors such as the quantity and quality of resources (land, labour and capital) and the efficiency with which they are used.
6a	2	If leakages ($S+T+M$) are greater than injections ($I+G+X$) then the level of aggregate demand will fall, causing a decrease in the level of production, income and employment.

6b	9	Macroeconomic effects would be as follows: i. A rise in the level of savings – Savings is household income directed into the financial sector. It reduces consumption spending in the economy and so is a leakage from the economy. A reduction in private consumption expenditure reduces aggregate demand, which reduces the level of production in the economy as business sales fall and unsold stocks increase, causing firms to reduce production. This causes a decrease in the demand for factors of production (that is, labour) causing an increase in cyclical unemployment. This causes a decline in national income, resulting in a contraction or slowdown in the level of economic activity. ii. A drop in imports – Imports are goods purchased from overseas. They reduce consumption spending on goods and services produced in the domestic economy. Imports are a leakage from the economy. If there is a drop in imports, then leakages from the economy decrease. If private consumer spending on domestic production increases, then aggregate demand increases, increasing the level of economic activity in the domestic economy. The level of production increases due to increased sales and a fall in stock levels, causing a decrease in cyclical unemployment. iii. Increased private consumption – Increased private consumption expenditure is a component of aggregate demand and is the total expenditure by the household sector on final goods and services. It makes up 60 per cent of total spending on production in the economy and is relatively stable. An increase in private consumption spending increases aggregate demand which increases the levels of production (assuming there is spare or under-utilised capacity in the economy) as sales are increasing and stock levels are falling. The result would be an increase in the demand for labour, causing unemployment to fall. There would be an increase in national income. If there was no spare capacity in the economy, inflation would occur. It results in an increase in the level of economic activity. iv. Lower investment spending – Investment spending is spending by the business sector on capital goods such as plant and equipment. It is an injection into aggregate demand financed from savings (which is a leakage). It causes the levels of production, employment and income to increase, resulting in an increase in the level of economic activity. If investment spending is lower, there is less spending on capital goods such as plant and equipment. This would cause a fall in injections, and aggregate demand would fall. This would cause the level of production in the economy to fall, and unemployment to increase. The level of economic activity would fall.
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Question	Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		v. Income and company tax rate cuts – Taxes are a leakage from household expenditure. Tax cuts by the government reduce the leakage from spending, and household disposable income increases. This causes private consumption spending and the level of aggregate demand to increase, causing an increase in the demand for goods and services, with a flow-on effect of causing sales to increase and stock levels to fall. The level of production would increase, causing an increase in the level of employment through an increase in the demand for labour. The level of economic activity would increase. vi. A fall in leakages relative to injections – The net effect is for injections to be greater than leakages, causing the level of aggregate demand to increase, which in turn causes the level of national income to increase. Aggregate demand would increase, causing an increase in the real flows which are production and employment (assuming spare capacity in the economy). The equilibrium level of national income would increase. vii. Rises in GDP – GDP measures the level of production in the economy. The increase in production indicates an increase in the level of economic activity. An increase in production would result in an increase in national income, which would cause an increase in aggregate demand and a further increase in production, employment and income in the economy. viii. A drop in total household incomes – Household income is an important demand-side factor influencing private consumption expenditure in the economy. A drop in household incomes would cause a decrease in consumption expenditure and the level of aggregate demand. A fall in sales and the build-up of stocks would cause a decrease in production. This would cause a fall in the equilibrium level of national income. ix. A reduction in the availability and efficiency of resources – The quantity and quality of resources determines the productive capacity or the ability of the economy to produce goods and services, and hence the level of aggregate supply. A drop in the quantity and productivity of resources causes the productive capacity of the economy to fall, causing a decrease in the ability of the economy to produce goods and services.

Question	Marks	Answer/Exemplary response with <i>marking guide instruction</i>
7a	2	During the COVID-induced recession, Victoria (with a growth rate of -8.5%) and NSW (with a growth rate of -8.6%) suffered the most; in contrast South Australia (growth rate of -5.8%) and Queensland (growth rate 5.9%) were the states that suffered the least.
7b	2	The variation in the impact on the states could be explained by the amount of cases each state experienced, and the corresponding need to enforce lockdowns. Victoria and NSW, the two most populous states, had the most cases and the most time spent in lockdowns, which limited the ability of households to spend; this helps to account for the large drops in spending in these states.
7c	2	Victoria and NSW experiencing large decreases in spending would mean less demand for goods and services, and less production would be required to satisfy this demand. This would see the economy enter a contractionary phase, with a significantly reduced level of economic activity.

2.6 ACTIVITIES

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	1	Aggregate demand can be defined as the total expenditure on final goods and services produced in the economy over a given period of time. Aggregate demand is composed of aggregate private consumption expenditure (C), aggregate private investment expenditure (I), aggregate government consumption expenditure (G_1), government investment expenditure (G_2) and net export expenditure ($X-M$). $AD = C + I + G_1 + G_2 + X - M$
2	5	Factors that affect the levels of each of the components of spending include: <i>Consumer confidence</i>, which is the general household sentiment concerning future expectations regarding income, employment prospects and inflation, plays a crucial role in the level of consumption expenditure. A fall in consumer confidence will result in a reluctance to spend by households, leading to a fall in aggregate demand. A rise in <i>interest rates</i> makes the borrowing of money more expensive. In particular, the repayments of loans, especially mortgage repayments, become more expensive, which results in a fall in household consumption expenditure, leading to a fall in aggregate demand. Investment expenditure A fall in <i>interest rates</i> makes the borrowing of money for businesses cheaper. This fall in interest rates is expected to encourage businesses to take out loans for the purpose of investment, which will result in a rise in business investment expenditure, leading to a rise in aggregate demand. <i>Business confidence or sentiment</i> Business confidence or sentiment reflects the outlook of firms regarding future sales and profits. When the level of consumer spending (as reflected in retail sales) is strong, firms are more optimistic and will undertake investment

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		spending on plant and equipment. An increase in <i>business confidence</i>, a greater optimism for business sales and profits, will result in an increase in aggregate demand. Government expenditure An increased <i>government budget deficit</i> is likely the result of the government undertaking more spending within the Australian economy. This action by government will lead to an increase in aggregate demand. Increasing <i>government indebtedness</i>, as seen in Australia over the past 6–7 years, has resulted in the federal government looking to reduce its government expenditure in order to bring debt under greater control. A cut back in government spending in an attempt to reduce debt level will result in less government expenditure, leading to a fall in aggregate demand. Exports An increase in <i>economic activity overseas</i> will result in greater demand for Australian exports, leading to an increase in aggregate demand. A fall in the Australian exchange rate will make Australian exports more competitively priced on overseas markets, with, hopefully, a corresponding increase in demand for Australian exports, resulting in an increase in aggregate demand.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>												
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5a	3	Aggregate demand is the total expenditure on final goods and services produced in the domestic or Australian economy. It comprises private consumption expenditure (C), private investment expenditure (I), government current expenditure (G_1), government capital or investment expenditure (G_2) and expenditure on net exports ($X-M$). A wide range of demand-side factors influence the components of aggregate demand, including the level of household disposable income, consumer and business sentiment, interest rates, taxation, overseas economic conditions, terms of trade and government macroeconomic policies.
5b	3	i. The effects of a rise in the level of AD:

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6a	2	Private consumption expenditure (C) is the total expenditure by the household sector on final goods and services or those goods and services that satisfy immediate needs and wants. It includes expenditure on both consumer single use and durable goods. It comprises about 60 per cent of total spending in the economy and is relatively stable.												
6b	1	Consumption had been relatively stable prior to the pandemic; however, it fell to –3.1% in 2019–20, and then slowly started to grow again (by 0.9% in 2020–21) until it reached a high of 6.2% in 2021–22 (most likely as consumers began spending the savings they had accumulated during the lockdowns and uncertainty of the preceding years).												
6c	4	Between 2020 and 2022, the fall in consumption spending occurred for various reasons. Weaker consumer confidence — Australian households became more pessimistic concerning future income and employment levels as lockdowns and other restrictions were introduced. Over recent years, consumer confidence												

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		levels have been subdued and relatively pessimistic. Pessimism resulted in more saving and lower levels of consumption expenditure, slowing aggregate demand and economic activity. Low disposable income – with rising unemployment and lockdowns forcing businesses to close or reduce hours of operation, many households found themselves with reduced income. With less disposable income, consumption spending fell: this led to lower aggregate demand and economic activity.
7a	2	Private investment spending is undertaken by the business sector and is expenditure on adding to stocks of capital goods such as physical plant and equipment including machinery, factories, farm vehicles and computers. Private investment spending is an injection of spending in the economy that adds to the level of aggregate spending or aggregate demand. This expenditure increases the actual production of goods and services and the employment of resources. It also increases the productive capacity of the economy and makes possible the production of other goods and services. In addition, it improves the productivity (efficiency) of labour and natural resources. Private investment spending influences the level of economic activity from both the demand side and supply (structural) side of the economy.
7b	4	In recent years growth business investment spending has been quite unstable, ranging from a high of 5.1% in 2017–18 to negative numbers recorded in 2018–19, 2019–20 and 2021–22. Two reasons which could account for this could be: Business confidence — relates to the level of optimism or pessimism by a firm about its future sales and profits. If businesses are pessimistic and expect lower future sales and profits, after a time lag they reduce I in order to help cut their productive capacity. The pandemic lockdowns significantly dented business confidence and businesses were very reluctant to expand and invest, given the uncertainty. This can help to explain some of the negative growth in business investment spending, which has tended to slow down AD and economic activity. Interest rates — the cost of borrowing money (credit). Along with other factors, interest rates are influenced by the Reserve Bank of Australia (RBA) and are part of its monetary policy stance. This policy is designed to affect the

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		growth in credit-sensitive C (on consumer durables) and I spending (on the purchase of new equipment and the expansion of businesses). Therefore, interest rates are seen as an aggregate demand-side factor affecting GDP, employment, and income levels. Interest rates were at record lows as the RBA attempts to stimulate growth in response to weak private domestic demand. This may have encouraged some businesses to take the loans needed to undertake significant investment, and may help to explain some of the positive growth in private business investment. This growth in private business investment would help to increase AD and economic activity.

2.7 ACTIVITIES

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	2	Aggregate supply is defined as the total quantity of all finished goods and services produced by every business in the Australian economy annually. The actual volume of goods and services that the economy can produce is determined by its productive capacity. The productive capacity is the economy's potential output, which is dependent on the quantity and quality of productive resources as well as the efficiency or productivity of those resources. The capacity of the economy to produce goods and services depends on a range of structural or aggregate supply-side factors. Examples of supply-side or structural factors are labour force participation rates, labour productivity, business profits and bankruptcy rates, costs of production such as labour costs, spending on research and development, severe climatic events such as floods, fires and drought affecting rural and mining production, immigration levels, and availability of social and economic infrastructure.
2	2	The main determinants of the level of aggregate supply: • <i>Access to labour resources</i>, which is affected by many factors including demographics, participation rates, government policies, labour productivity and leisure time • <i>Access to capital resources</i>, which is affected by many factors including investment levels, levels of interest rates, outlays on technology and R&D, tax rates and infrastructure • <i>Access to natural resources</i>, which is affected by many factors including exploration, land management, and combating climate change • <i>Business costs profitability and survival</i>, which is affected by many factors including wage and other labour costs, productivity, interest rates, cost of materials used in manufacture, value of the Australian dollar, costs of utilities, new technology, scale or business size, tax rates and other government policies.
3a	1	A rise in the costs of production or falling profits would result in less favourable aggregate supply conditions. Facing rising costs or falling profits, many businesses would be likely to reduce their output and some businesses may close

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		down. Firms are discouraged from expanding. The overall effect of this less favourable aggregate supply condition is a cut to the productive capacity of the economy.
3b	1	The labour force participation rate refers to the proportion of the population aged over 15 years who are members of the labour force. An increase in the labour force participation rate would result in more workers being available, for businesses to put to use in the production process if required, providing more favourable aggregate supply conditions and an increase in productive capacity.
3c	1	Productivity measures the output per unit of input. It is a measure of the efficiency of a unit of input. Labour productivity measures the output per unit of labour measured by the GDP per hour worked. Weaker labour productivity means that there is less output for the hours of labour input, which is a less favourable aggregate supply condition, resulting in a decrease in productive capacity.
3d	1	A reduction in income tax rates on individuals and companies is a favourable supply-side factor. Lower income tax rates mean that each individual unit of labour has more disposable income, so there is more incentive for individuals to enter the workforce or to work harder. This increases the labour force participation rate and the productivity of those already working. There is an increased quantity and quality of labour, which increases the productive capacity. A reduction in taxes may provide businesses with the motivation to produce more and increase profits, in the knowledge that a higher percentage of their profits can be retained. Such an incentive is likely to result in a higher productive capacity.
3e	1	The end of drought conditions means there are now more natural resources available for production, providing more favourable supply conditions and an increase in productive capacity.
3f	1	Business bankruptcy rates refer to the number of business closures due to a lack of profitability. Lower bankruptcy rates are a favourable supply-side factor as more businesses are profitable, producing goods and services, spending

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		on investment goods and employing the resources of the economy. These factors all increase the ability of the economy to produce more goods and services. A reduction in business bankruptcy would hopefully result in more entrepreneurs being prepared to guide businesses to invest more, providing more favourable supply conditions and an increase in productive capacity.
4	6	Favourable supply-side factors increase the ability and willingness of businesses to produce. The ability to produce is determined by the quantity and quality of resources (the productive capacity), and the willingness to produce is influenced by the costs of production and profitability. The potential or the productive capacity of the economy increases because the quantity, quality and efficiency of the scarce resources increase and the willingness of businesses to produce grows. This is likely to increase economic activity because the economy's sustainable speed to produce more goods and services increases. Also, favourable conditions can see a reduction in the cost of production, which will help to produce cost inflation. The impact on unemployment should also be positive, as more profitable businesses are more likely to expand and hence will require more workers, reducing unemployment. However, if the supply side experiences improvements based on productivity and increased use of capital, then the increases in production may not require extra labour and therefore may not reduce unemployment.
5a	2	The productive capacity of an economy is the maximum amount of goods and services that an economy could potentially produce if it used all its existing resources to their maximum efficiency. The productive capacity of any economy is determined by the quantity of resources (land, labour and capital), the quality of those resources and the efficiency or productivity of those resources. The motivation of firms to actually use productive capacity is also a factor that influences productive capacity.
5b	4	Supply-side factors are those factors that influence the productive capacity of the economy; that is, the potential of the economy to actually produce goods and services. Each of the following factors is a supply-side factor that influences the productive capacity of the economy, long-term sustainable level of economic activity and living standards.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		i. An increased labour force participation rate from 65 to 70 per cent is seen as a favourable supply-side factor because it will increase the productive capacity of the economy, increase the long-term sustainable level of economic activity and improve living standards in the economy. The labour force participation rate refers to the proportion of population aged 15 years and over, who are in the labour force. If the participation rate increases, then the size of the labour force has increased, and the amount of labour available to produce goods and services has increased. This is a favourable supply-side factor because it increases the productive capacity of the economy by increasing the quantity of the resource labour, promoting a long-term sustainable level of economic growth as well as improving living standards. Living standards of the society and individuals will rise because the economy is able to produce more goods and services to satisfy more material needs and wants, and employed individuals will receive income to purchase goods and services. Non-material benefits associated with employment, such as self-esteem and forming social relationships, are other factors that may improve living standards. ii. A slowdown in the adoption of ICT and other new technology is an unfavourable supply-side factor because it will limit growth in the productive capacity of the economy, long-term sustainable economic activity and living standards. A sustained growth in technology and ICT is essential to the growth in labour and capital productivity (multifactor productivity). Productivity is the measure of efficiency or the output per unit of input. Growth in productivity is important because it increases the efficiency of resources, which means that the same amount of resources can produce more goods and services, increasing the productive capacity of the economy. A slowdown in the rate of increase in productivity limits the growth of the productive capacity and sustainable growth in the level of economic activity. Lower growth impedes the satisfaction of needs and wants, which will reduce living standards. Lower productivity growth rates will reduce the growth in income, which will have a negative impact on living standards and the ability of firms to reduce real unit costs per unit of output. This could affect the international competitiveness of exports, which will impact on living standards. iii. Infrastructure spending is expenditure on capital equipment used by producers to produce goods and services such as roads, hospitals, water, transport, bridges and power generation. It is a favourable supply-side factor because it is critical to increasing productive capacity, promoting long-term sustainable economic activity and increasing living standards. Government expenditure on infrastructure (e.g. the National Broadband Network or

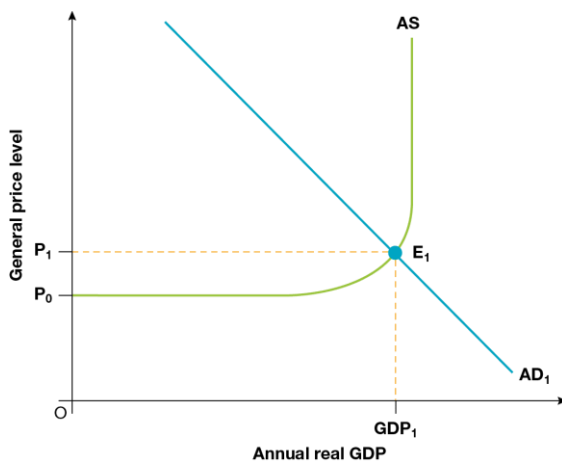
Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		NBN, or the Western Ring Road in Melbourne) directly increases the quantity of capital goods, both economic and social, and so increases the capacity of the economy to produce goods and services, leading to an increase in material living standards. Spending on infrastructure reduces bottlenecks in the economy, increases productivity and promotes business efficiency by lowering costs of production. It increases the amount of goods and services the economy can produce. Lower costs and increased productivity generate more income and promote an internationally competitive economy. All of these factors promote a long-term sustainable level of economic activity and help to promote living standards. iv. Business profits (total sales less production costs) are a supply-side factor that affect the productive capacity of the economy and the willingness of businesses to produce goods and services. Business profitability influences investment spending in new plant and equipment, which impacts directly on the productive capacity of the economy. If business profitability falls, then business investment spending will slow down, affecting the growth in capital goods, business efficiency and productive capacity. This will also affect other resource efficiency or productivity, reducing the growth in the productive capacity. Long-term sustainable growth will be limited, as will living standards. v. A worsening drought or severe floods are an unfavourable supply-side factor because they reduce the capacity of land as a resource to produce agricultural goods. This limits the productive capacity of the economy and the sustainable rate of economic activity. The production of rural goods will fall, reducing GDP, employment and income. Floods can also reduce mining production by flooding the pits and destroying transport infrastructure. The shortages of agricultural production will cause prices to rise and costs of production in the economy to increase, resulting in fewer goods available for export. These exports will also become internationally less competitive. The impact of the drought or floods on the availability of goods, prices and employment will have an adverse effect on living standards in the economy. vi. A shortage of skilled labour is an unfavourable supply-side factor. The Australian economy has experienced labour shortages in some recent years, creating bottlenecks in the economy and limiting the capacity of the economy to produce goods and services, therefore reducing the productive capacity of the economy. Labour shortages can

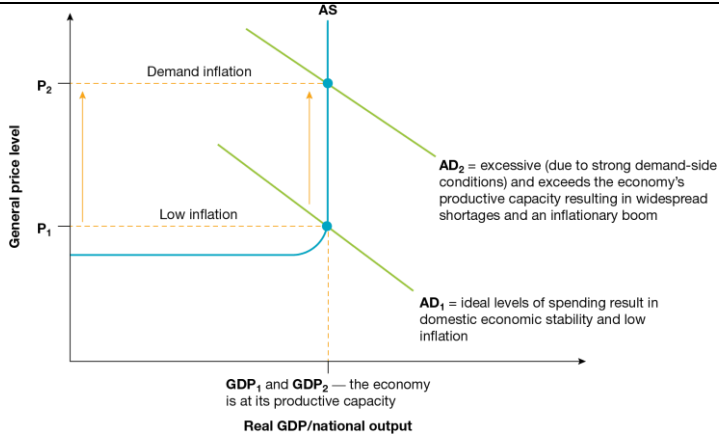
Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		reduce efficiency and increase production costs of different industries. Skill shortages slow the sustainable rate of economic activity and can have an unfavourable effect on living standards through the slowing of production, loss of productivity gains and international competitiveness of the economy.
6a	2	Labour productivity is the output per unit of labour (GDP per hour worked), or the efficiency of labour, and is normally calculated by dividing the real value of final output; that is, GDP (volume of output) over a period of time by the total number of hours worked by the labour force.
6b	2	Labour productivity can be influenced by a number of factors such as education and training, spending on new technologies, research and development, spending on infrastructure, and income tax cuts. Spending on education and training is important to increase the efficiency of labour because it will help increase the skills of each unit of labour and so increase the quantity and quality of output. Between 2011 and 2018 spending on vocational training has declined, disrupted by the attempted privatisation of the training system and the rorts that followed. Government tax concessions for research and development has also declined over this time, and weakened business confidence has seen a slowing of investment in new technologies. These factors may have contributed to the slowing in the rate of growth in labour productivity, and actual decline in 2018–19.
6c	2	Rises in labour productivity are a favourable supply-side factor because an increase in labour productivity or the efficiency of labour increases the capacity of the economy to produce more goods and services. If each unit of labour is producing more output per hour, the ability of the economy to produce more goods and services is greater. In the years between 2019 and 2022, labour productivity continued to grow, meaning that more output was gained from each hour worked. For instance, the 1.5% rise in 2021–22 means 1.5% more production was achieved for each hour worked. As labour productivity rises, so too does the productive capacity of the economy, as it now has a greater potential to produce. This will result in the production possibility frontier (PPF) moving out to the right.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
6d	2	The higher levels of labour productivity recorded in these years means that either more goods and services are being produced from the same labour inputs as before, or even less labour resources are required to maintain a steady level of goods and services. This reduces the cost of production for businesses, which means lower selling prices and an increased access to goods and service for households, which has a positive effect on material living standards.
7a	2	An interest rate is simply the price of money in the finance market, determined by the forces of supply and demand. Interest rates on loans are the cost of borrowing money or the cost of credit. As many businesses take out loans when they begin, or borrow to expand or invest, the cost of repaying the loan becomes as expense for the business and a part of the business's costs of production.
7b	4	i. The lowering of interest rates for business loans during this time would be likely to encourage business investment as the cost of credit is relatively low. This will increase private business investment, increasing AD and leading to an expansion in the short-term cyclical level of economic activity ii. The lower interest rates will reduce the cost of production for businesses with loans, increasing their profitability and willingness and ability to supply. If they expand their investment, they will also improve the productive capacity of the economy, which will see and increase in AS and the long-term sustainable level of economic activity.

2.8 ACTIVITIES

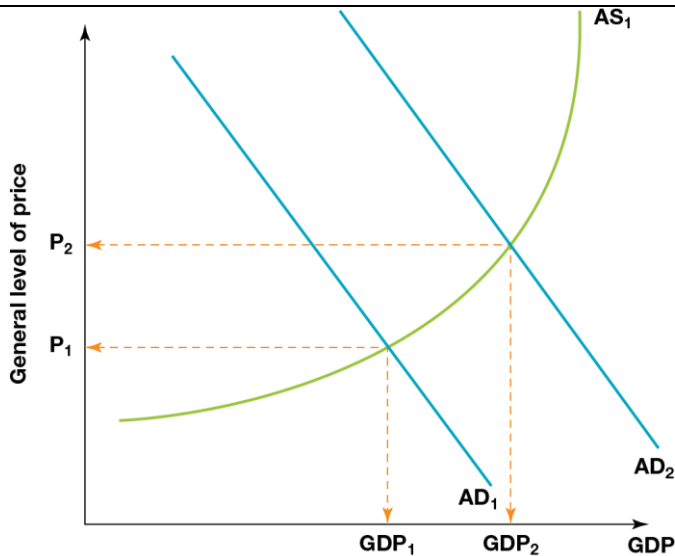
Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	2	The AD–AS diagram shows the interaction between the aggregate demand and aggregate supply and shows the effects changes in each can affect a country's general economic conditions.
2a	1	Aggregate demand (AD) is the total annual value of spending on Australian-made goods and services. When graphed it has a negative slope, similar to the demand curve for a single market, as the quantity of goods and services demanded will contract when prices rise, and expand when prices are lower.
2b	1	Aggregate supply (AS) is the total annual volume of Australia's output that firms are willing and able to supply or produce. When graphed, it has a positive slope, consisting of a horizontal section and a vertical section joined by an intermediate section or 'elbow'.
2c	1	The equilibrium level of economic activity is the point at which the AD curve and the AS curve intersect, and represents a general equilibrium achieved nationally across all markets.
2d	1	An increase in aggregate demand means the AD curve will shift to the right, and a decrease in aggregate demand means the AD curve will shift to the left.
2e	1	An increase in aggregate supply means the AS curve will shift to the right, and a decrease in aggregate supply means the AS curve will shift to the left.
3	2	The horizontal section of the AS line represents the low levels of national output, where there is plenty of unused productive capacity. The vertical section represents the economy operating at full capacity, with full employment of all resources. On this section of the curve even large price rises will not lead to an extension of supply, as extra resources are not available to firms. The 'elbow' section represents the point at which excess capacity is taken up and the economy moves from a position of under-utilisation of resources to one of full employment of all productive resources.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
4a	1	Where AD is at AD_1 then domestic economic stability occurs at E_1. This is the full employment level of production, with the economy experiencing low inflation. Short-run living standards are maximised.  The graph illustrates the AS-AD model. The vertical axis is labeled 'General price level' and the horizontal axis is labeled 'Annual real GDP'. The origin is marked 'O'. A vertical green line represents the Aggregate Supply (AS) curve, which is horizontal at price level P_0 and then slopes upward. A downward-sloping blue line represents the Aggregate Demand (AD_1) curve. The equilibrium point E_1 is at the intersection of the AS and AD_1 curves. Dashed lines from E_1 indicate a price level of P_1 on the vertical axis and GDP_1 on the horizontal axis.
4b	1	An inflationary boom occurs where stronger demand-side conditions cause expenditure (aggregate demand) to rise excessively to AD_2. The new equilibrium located high up on the AS line causes economic activity to rise to GDP_2. This causes inflation due to excessive spending. Production cannot keep up with demand and the economy overheats. Shortages of goods and services develop, causing rising prices and demand pull inflation.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		
4c	1	A recession is two quarters of negative GDP growth. If weak aggregate demand-side conditions prevail and expenditure is only at AD_0 , the equilibrium level of economic activity will also be down on GDP_0 . Low or falling production results in a recession.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
4d	2	The economy is originally experiencing domestic economic stability where the aggregate demand line (AD_1) intersects the aggregate supply line, causing a full employment level of production with low inflation. This is a situation of domestic economic stability (GDP_1). The effect of a serious recession in China and the United States means the pace of economic activity overseas is slowing and would be a weak demand-side condition. This, combined with a drop in our terms of trade, would lead to a fall in the demand for Australia's exports. This will cause a decrease in AD_1 to AD_0.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
4e	2	Business confidence relates to business expectations about future economic growth, lower or stable production costs, and generally more favourable conditions. An increase in business confidence from 5 to 25 points encourages businesses to expand and invest, leading to an increase in business investment that moves the level of aggregate demand from AD_1 to AD_2.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		
4f	2	Stagflation occurs as a result of less favourable aggregate supply conditions, and sees a general deterioration in macroeconomic conditions, including lower levels of GDP, a rise in production costs, causing firms to lift their prices, and a rise in structural unemployment. It will lead to a decrease in supply from AS_1 to AS_2. The diagram below illustrates this. Figure 2.21 How generally less favourable aggregate supply-side conditions can cause higher production costs for firms leading to cost Inflation pressures

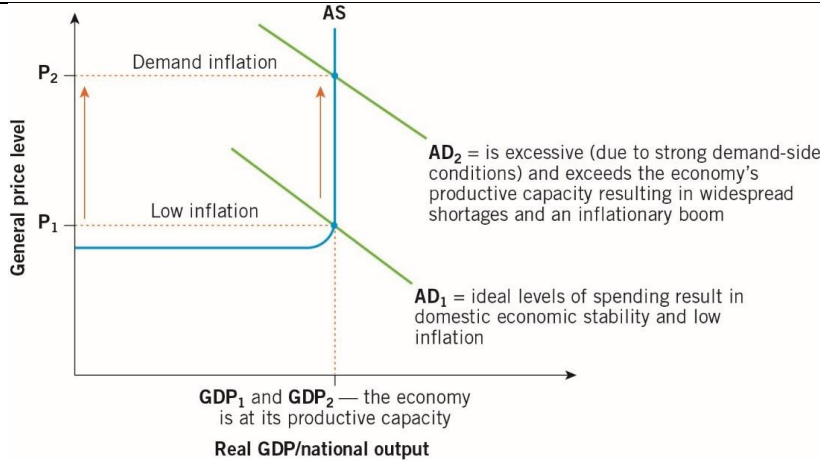
Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		The diagram illustrates the AS-AD model. The vertical axis represents the 'General price level' and the horizontal axis represents 'Real GDP/national output'. A downward-sloping blue line represents the Aggregate Demand (AD) curve, labeled 'AD₁ = ideal levels of spending'. Two vertical green lines represent the Aggregate Supply (AS) curve: 'AS₁ = original supply-side conditions' and 'AS₂ = new less favourable supply-side cost conditions'. The initial equilibrium is at the intersection of AS₁ and AD₁, corresponding to price level P₁ and GDP₁ (domestic economic stability). The new equilibrium is at the intersection of AS₂ and AD₁, corresponding to a higher price level P₂ and lower GDP₂ (economic stagnation). The vertical distance between P₁ and P₂ is labeled 'Cost inflation', and the horizontal distance between GDP₁ and GDP₂ is labeled 'Low inflation'.
4g	2	It is important for AD to rise at a rate matched by the rise in AS because this is a point at which economic stability is reached. Weak AD conditions can lead to slower GDP growth, structural unemployment and low demand inflation, resulting in a contraction along the AS curve.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
5	9	a. The consumer confidence index falls to 86 points b. Labour productivity grows by 3.2 per cent on the previous year c. Interest rates on personal loans and overdrafts fall d. Australia's terms of trade index finally starts to rise e. The rate of company tax is reduced f. The drought affecting Northern Australia finally ends g. RULCs falls by 1.8 per cent on the previous year h. The exchange rate for the Australian dollar falls 15 per cent i. The federal government switches from a budget deficit to a budget surplus

2.9 ACTIVITIES

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	2	Inflation occurs when there is a sustained increase in the average level of prices in the economy over a period of time. The goal of low inflation (also called stability of the Australian currency) is achieved when there is a slow annual rise in the general level of prices, on average, over the course of the economic cycle. The RBA sets a target rate of inflation where prices rise between 2 and 3 per cent a year on average over the duration of the economic cycle, consistent with achieving other government economic goals.
2	4	High inflation in the economy is considered to be undesirable because of its adverse effects on the achievement of other economic goals and living standards. <i>1. High inflation can slow economic growth in the economy.</i> Economic growth is where there is an increase in the production of goods and services in the economy. In the short-term, growth is determined by an increase in aggregate demand. Inflation undermines both consumer and business confidence, which impacts on private consumption and business investment spending, slowing or reducing aggregate demand. Inflationary pressures result in higher interest rates, which increase savings (a leakage), and reduce both consumer and business borrowings and spending, leading to a reduction in aggregate demand and the production of goods and services in the economy. Inflation can also lead to speculative rather than productive investment as owners of resources try to maximise their incomes and protect their real wealth. Resources tend to be allocated away from productive investment, which limits the growth in productive capacity and the sustainable rate of economic growth. <i>2. High inflation has an inequitable effect on the distribution of income in the economy.</i> Different income groups will be affected in different ways, impacting living standards. Some income groups are better off and some are worse off. Individuals on fixed incomes such as pensions or self-funded retirees are worse off because their real income or purchasing power of income falls. Individuals whose incomes rise with inflation, such as speculative investors, will have a real increase in their incomes. Exporters may be worse off as they become less internationally competitive,

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		while importers may be better off as domestic consumers switch their spending to the cheaper imports from the higher-priced domestic substitute goods. <i>3. High inflation affects the international competitiveness of the Australian economy.</i> Domestic producers will be less competitive in the international marketplace because the prices of Australian exports increase relative to our competitors. This will impact on business profits, affecting business investment spending and employment in these export industries. Structural unemployment could occur. Australia's exports receipts may fall, which may cause an increase in the current account deficit, particularly if there is an increase in more price competitive imports. This could cause a depreciation of the exchange rate.
3	3	Demand inflation occurs when the level of aggregate demand increases to an excessive level, where there is limited or no spare capacity available to increase aggregate supply to meet the increase in aggregate demand. Factors that might lead to the increase in demand include: • rises in consumer confidence • strong levels of business optimism • rises in disposable income per capita • rapid population growth • government policies involving lower interest rates and/or bigger expansionary budget deficits • stronger global economic growth among our major trading partners • higher terms of trade and/or a weaker exchange rate for the Australian dollar.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		 General price level P_2 P_1 Demand inflation Low inflation AD_2 = is excessive (due to strong demand-side conditions) and exceeds the economy's productive capacity resulting in widespread shortages and an inflationary boom AD_1 = ideal levels of spending result in domestic economic stability and low inflation GDP_1 and GDP_2 — the economy is at its productive capacity Real GDP/national output
4	3	Cost inflation is caused by increases in production costs that limit AS, independent of the level of AD. Factors causing cost inflation include the following: • wages and salaries of staff • labour on-costs • utility charges such as gas, electricity • costs of transport and telecommunications • raw material costs like wool, oil and steel. How generally favourable aggregate supply-side conditions can cause higher production costs for firms leading to cost inflation pressures.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		The diagram illustrates the AS-AD model. The vertical axis represents the 'General price level' and the horizontal axis represents 'Real GDP/national output'. A downward-sloping blue line represents the aggregate demand curve, labeled $AD_1 = \text{ideal levels of spending}$. Two vertical green lines represent the aggregate supply curve: $AS_1 = \text{original supply-side conditions}$ and $AS_2 = \text{new less favourable supply-side cost conditions}$. The initial equilibrium is at the intersection of AS_1 and AD_1, corresponding to price level P_1 and $GDP_1 = \text{domestic economic stability}$. The new equilibrium is at the intersection of AS_2 and AD_1, corresponding to a higher price level P_2 and lower $GDP_2 = \text{economic stagnation}$. The vertical distance between P_1 and P_2 is labeled 'Cost inflation', and the horizontal distance between GDP_1 and GDP_2 is labeled 'Low inflation'.
5a	3	Inflation is measured by the Australian Bureau of Statistics and the most common indicator is the consumer price index (CPI). The CPI, assessed quarterly (every three months), measures changes in the retail prices of a basket of locally made and foreign goods and services that represent a high proportion of the expenditure of metropolitan households living in the seven capital cities. The CPI measures the change in prices of 100 000 goods and services, which are divided into 11 broad categories. This basket of 100 000 goods and services is called the regimen. Each of these items is given a weighting according to its relative importance in overall household expenditure. Prices are surveyed every three months using metropolitan retail outlets and the public sector; that is, local council property rates. Price changes over a period of time are compared to a base year that is given an index of 100 points. The purpose of the base year is to be able to measure the change in the prices of the goods and services.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>																												
5b	2	While the CPI is a useful measure for determining the change in the average or general level of prices in the economy, like all economic indicators it does have its limitations. Two limitations of the CPI are the: i. lack of representation of all prices in the economy. Only 100 000 goods and services are selected so there is the problem of deciding which items to include and exclude from the regimen. The prices of these items are collected in the seven major capital cities and so may not be relevant to people living outside the capital cities, such as people living in rural areas. ii. weighting of the different goods and services can be difficult and so may be inappropriate and not reflective of the pattern of expenditure for particular types of households. Over time, with product development, some items may become less relevant while new goods may not be included in the regimen.																												
5c	4	<table><tr><th>2015–16</th><th>2016–17</th><th>2017–18</th><th>2018–19</th><th>2019–20</th><th>2020–21</th><th>2021–22</th></tr><tr><td>108.6</td><td>110.2</td><td>113.0</td><td>114.8</td><td>114.4</td><td>118.8</td><td>126.1</td></tr><tr><td></td><td>$110.2 - 108.6 = 1.6$</td><td>$113 - 110.2 = 2.8$</td><td>$114.8 - 113 = 1.8$</td><td>$114.4 - 114.8 = -0.4$</td><td>$118.8 - 114.4 = 4.4$</td><td>$126.1 - 118.8 = 7.3$</td></tr><tr><td></td><td>$1.6/108.6 \times 100 = 1.47\%$</td><td>$2.8/110.2 \times 100 = 2.54\%$</td><td>$1.8/113 \times 100 = 1.59\%$</td><td>$-0.4/114.8 \times 100 = -0.35\%$</td><td>$4.4/114.4 \times 100 = 3.85\%$</td><td>$7.3/118.8 \times 100 = 6.14\%$</td></tr></table> Students can graph the data from the table above, using either a bar graph or a line graph (with the CPI measured on the vertical axis and the years on the horizontal axis). Students should note that inflation has been very variable, falling to a low of –0.35% in 2019–20 and then rising to a high of 6.14% in 2021–22. Given the variability and	2015–16	2016–17	2017–18	2018–19	2019–20	2020–21	2021–22	108.6	110.2	113.0	114.8	114.4	118.8	126.1		$110.2 - 108.6 = 1.6$	$113 - 110.2 = 2.8$	$114.8 - 113 = 1.8$	$114.4 - 114.8 = -0.4$	$118.8 - 114.4 = 4.4$	$126.1 - 118.8 = 7.3$		$1.6/108.6 \times 100 = 1.47\%$	$2.8/110.2 \times 100 = 2.54\%$	$1.8/113 \times 100 = 1.59\%$	$-0.4/114.8 \times 100 = -0.35\%$	$4.4/114.4 \times 100 = 3.85\%$	$7.3/118.8 \times 100 = 6.14\%$
2015–16	2016–17	2017–18	2018–19	2019–20	2020–21	2021–22																								
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Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		movement, it cannot be said that the goal of low inflation has been met, as the inflation rate was below the RBA's target rate of 2 to 3 per cent a year on average before 2020, and has been above this rate in more recent years.
5d	2	The headline inflation rate is the Consumer Price Index (CPI), which includes all items in the regimen. The underlying rate (the core rate) is the CPI, less volatile items such as the price of oil and fruit and vegetables.
6a	2	Inflation is caused by both aggregate demand (demand inflation) and aggregate supply-side factors (cost inflation). Demand inflation occurs where the level of aggregate demand is greater than the aggregate supply, causing general shortages of goods and services in the economy and resulting in an increase in the general level of prices in the economy. Demand inflation is caused by cyclical influences in the economy. Cost inflation occurs where the costs of production in the economy increase, reducing the profit margins of firms. As a result, firms in the economy raise their prices to maintain their profit margins or to cover the higher costs to stay in business.
6b	8	Aggregate demand is influenced by many demand-side factors. Students could identify and explain the effects of any two factors including: levels of consumer and business confidence, changes in disposable income, population growth, interest rates, global economic growth, higher terms of trade. One important aggregate demand-side factor over the past two years has been the level of consumer sentiment or confidence, which measures the level of household optimism about future employment prospects and income levels. Australian households have been relatively pessimistic about their future employment situation and income level. Weaker levels of consumer confidence can cause softer spending, a build-up of unsold stocks or goods and services, price discounting by firms and lower demand inflation. A second demand-side factor that has influenced the direction of Australia's inflation rate during the past two years is the changing interest rates and policies of the Reserve Bank of Australia (RBA). Interest rates, as a demand-side factor, are the costs of borrowing: they have an effect on demand-pull inflation by altering the levels of savings by the household sector, and borrowing by the household and business sectors. Interest rates therefore influence credit sensitive consumption and investment spending, savings and the level of aggregate demand.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		Students will need to illustrate and explain the impacts of these factors using two fully labelled AD–AS diagrams (each showing the before and after effects of the factor). Aggregate supply is influenced by many supply-side factors. Students could identify and explain the effects of any two factors including: wages and salaries of staff, labour on-costs, utility charges such as gas, electricity, costs of transport and telecommunications, raw material costs like wool, oil and steel. • One important aggregate supply-side factor over the past two years has been historically low wages growth. Lower production costs allow firms to reduce their prices to compete and still make good profits, thereby easing cost inflation pressures. • A second aggregate supply-side factor is the exchange rate. The exchange rate can be both a demand-side and a supply-side factor. The exchange rate is the value of one country's currency in terms of another country's currency. Domestic firms import both resources and consumer goods, so an appreciation or depreciation of the currency can influence production costs. Between 2010 and early 2013, the Australian dollar (TWI) appreciated strongly by around 19 per cent, decreasing the cost of importing materials and equipment for producers, therefore helping to keep cost inflation lower. During 2013–19, the Australian dollar depreciated against the American dollar, increasing the cost of imported materials and equipment used by domestic firms. Higher costs may be either absorbed by firms or possibly passed on as higher prices to the consumer, resulting in cost inflation. Students will need to illustrate and explain the impacts of these factors using two fully labelled AD–AS diagrams (each showing the before and after effects of the factor).
7a	2	A very high inflation rate has different effects on various income groups. Some income groups will be better off, and some will be worse off. Fixed income earners such as self-funded retirees or pensioners will be unable to maintain the real purchasing power of their income and will therefore purchase fewer goods and services, decreasing their existing living standards. Upwardly flexible income earners such as speculators, whose incomes are linked to price rises in property markets for example, will be better off, so their living standards may rise if their income rises. Exporters will be disadvantaged if Australia's inflation rate is above that of major trading partners, causing the

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		quantity of goods exported to decrease to match falling demand. Those employed in export industries will decrease their share of income. If imports are competing with existing domestic production, the high domestic inflation rate may make domestic goods less competitive than imported goods. High inflation means higher interest rates and decreased consumer and business confidence, which will decrease aggregate demand, generating less production and employment. Less employment means less factor income, which creates a less equitable distribution of income and lower living standards.
7b	2	If Australia's inflation rate is higher than in other countries, this will reduce our international competitiveness as the selling price of Australian goods and services is likely to be higher than our overseas competitors. The volume of exports and their prices determines the value of exports. In a high inflation environment, the quantity of exports may decrease because of their prices and so the value of exports decreases. Domestic consumers may switch their spending to imports and away from domestically produced goods because of domestic prices. The balance on trade would likely decrease because the value of exports would decrease relative to the value of imports.
7c	2	Higher inflation can distort the allocation of resources between competing uses. High inflation often leads to higher investment in assets such as property, shares and other assets that are rapidly increasing in price, providing capital gains for those investors. There is likely to be less investment of resources in more productive long-term uses, such as expansion of business investment, as it takes longer to experience the benefits of such investment.
7d	2	In a high inflation environment, investors will be looking to invest where returns are higher and can be experienced more quickly. This tends to encourage more speculative, short-term investments rather than longer term, more stable investments.
8a	2	A 4 per cent depreciation of the Australian dollar between 2012 and 2019 means that the value of the Australian dollar in terms of another currency has decreased. One Australian dollar will buy less of another country's currency. A depreciation of the exchange rate is both a demand-side factor and a supply-side factor. As a demand-side factor, a depreciation of the exchange rate can influence the cyclical level of economic activity by influencing aggregate demand. Australian exports become cheaper for other countries to purchase, so the demand for exports will increase. Imports will become more expensive to purchase so net exports will increase, causing an increase in aggregate demand and demand-pull inflation pressures. On the supply side or structural side, a depreciation means

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		that the cost of imported raw materials and machinery to produce goods and services will be higher, increasing a firm's production costs, which may lead to cost inflation pressures. Expensive imported consumer goods provide less competition for domestically produced goods, providing little incentive for local firms to reduce costs and prices. This will lead to inflation in the long-term.
8b	2	A fall in the average price paid for crude oil from over US\$100 per barrel to around US\$65 per barrel between 2013 and 2019 reduces the costs of producing many goods and services because oil is used in their production. This would be a more favourable aggregate supply-side factor, helping to reduce cost inflation.
8c	2	The recent cyclones, floods and the drought in northern and eastern Australia reduces the quantity of goods produced by natural resources such as land. This reduces the productive capacity of the economy. The quantity of rural production would fall, causing shortages, so the price of these goods would increase, adding to inflationary pressures in the economy. Where these goods are used in the production of other goods, costs of production will increase, adding to cost inflation pressures. Cyclone Debbie in 2017 added to inflation through the increase in the price of agricultural produce, such as some tropical fruit and vegetables.
8d	2	Real unit labour costs (RULCs) represent the average level of wages and 'on costs' per unit of output produced, compared with the trend in the prices received by businesses for output sold. RULCs are a supply-side factor. A fall in RULCs of 4.8 per cent during 2016–17–18–19 means that labour costs per unit of output are falling, so this is a favourable supply-side factor for firms. The cost of producing each unit of output decreases, so firms can sell products profitably at lower prices, reducing cost inflation pressures.
8e	2	Labour productivity measures efficiency or output per hour as measured by GDP per hour worked by each unit of labour. If the rates of growth of labour productivity are slower as in 2016–17–18–19, then the cost per unit of output is increasing and business profits tend to fall. The fall in the rate of growth of labour productivity is a less favourable supply-side factor that will add to cost inflation pressures as businesses increase prices to maintain profitability.
8f	2	The tax rates on company profits affect aggregate supply. The progressive reduction in company tax rates from 30 per cent to 25 per cent from July 2020 for small to medium-sized businesses may provide greater incentives for these firms to invest and expand their operations, and for labour to work more productively by increasing rewards. As a

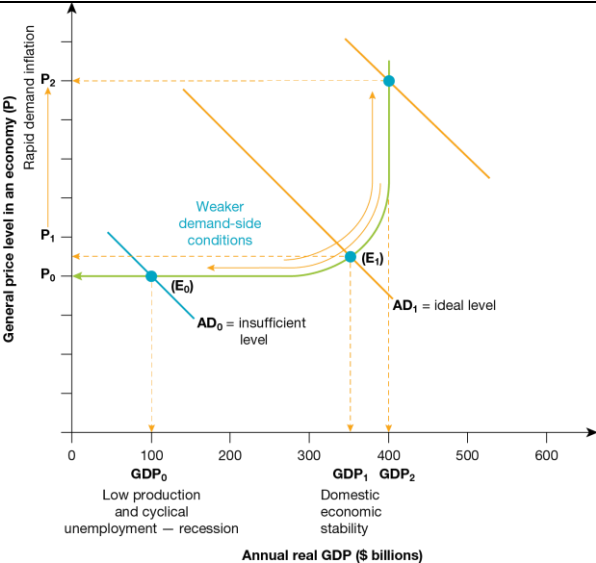
Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		result, there could be a rise in productive capacity. This would be a more favourable aggregate supply-side factor, helping to reduce cost inflation.
8g	1	Higher commodity export prices, as occurred during 2015–16–17–18–19, may result in higher terms of trade. Terms of trade represent the ratio of general prices received for our exports relative to the general prices we pay for imports. A rise in the terms of trade tends to increase aggregate demand and economic activity, leading to greater inflationary pressures.

2.10 ACTIVITIES

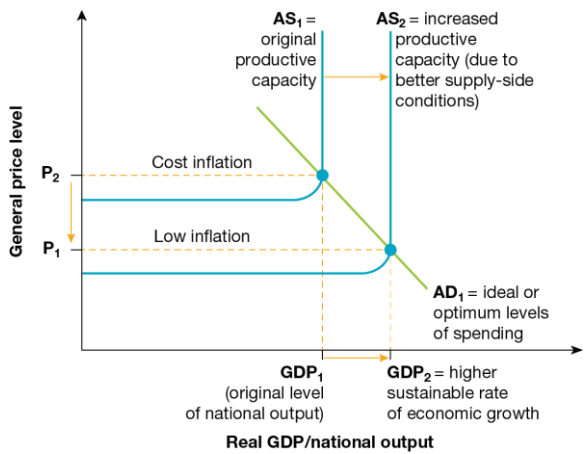
Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	2	Economic growth occurs in the economy when there is an increase in the level of real output; that is, the national production of goods and services between one year and the next. The rate of economic growth is measured by the annual percentage rise in GDP. The goal of a strong and economically sustainable rate of growth is defined as the rate of increase in GDP or production that is compatible with the achievement of other economic goals. As a rough guide, an economically strong and sustainable rate of growth is a rise in GDP averaging around 3 to 3.5 per cent a year over the cycle. It can also mean 'ecologically sustainable' in that the current usage of resources does not jeopardise the living standards of future generations through the depletion of non-renewable resources.
2a	4	Problem 1 – Inflation When the economy is growing at too fast a pace, this tends to be because spending or AD is rising faster than productive capacity or AS. It causes consumer prices to rise, undermining the achievement of the RBA's goal of low inflation. The problem here is that with little unused capacity left and falling stocks, collectively, firms are unable to lift national output. Widespread shortages start to push up prices, and demand inflation accelerates. Problem 2 – Environmental impact An economy growing too quickly can have a detrimental effect on the environment. Economic growth (especially some types of output) can cause the depletion of non-renewable natural resources and increased CO₂ emissions that accelerate global warming and lead to severe weather events. These and other developments are undermining material and non-material living standards for current and future generations.
2b	2	When GDP grows too slowly, or falls due to a contraction in the business cycle or recession, the unemployment rate (i.e. the proportion of the population aged 15 and over, who are able and willing to work, yet are unable to find work) soon rises — that is, there is an inverse relationship. Higher unemployment then causes a drop in average incomes, as more workers move onto government welfare benefits. Material wellbeing is lowered as lower income reduces consumption and access to goods and services, while non-material living standards suffer due to reduced

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		mental and physical health outcomes, stressed relationships, unhappiness, and feelings of failure and poor self-worth.
3	2	GDP, or Gross Domestic Product, is defined as the total annual value (\$) of final goods and services produced by a nation measured over a period of time such as three months or a year.
4a	2	Economists prefer to quote the chain volume GDP, rather than GDP at current prices, as it removes the effects of price rises and instead demonstrates the actual increase in the volume of goods and services produced.
4b	1	Calculation of chain volume GDP for Year 2 $\text{Chain volume GDP for year 2} = \frac{\text{price index in base year}}{\text{price index in the year to be adjusted}} \times \frac{\text{GDP at market prices in the year to be adjusted}}{1}$ $= \frac{100}{105} \times \frac{\$110 \text{ million}}{1}$ $= \$104.76 \text{ million}$
4c	2	$\text{GDP(E)} = \text{C} + \text{I} + \text{G} + \text{X} - \text{M}$ $\text{GDP(E)} = \$100\text{m} + \$20\text{m} + \$10\text{m} - \5m $\text{GDP(E)} = \$125\text{m}$
5a	2	Student responses will vary according to the years covered in their answers. Australia's rate of economic growth for 2017–18 was 2.9 per cent but this dropped to 1.4 per cent in 2018–19. Students will need to research the Australian Bureau of Statistics for ABS Table 5206.0 to find later figures, however at this stage there is a downward trend in GDP growth.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
5b	2	One demand-side factor that has affected Australia's rate of economic growth is economic activity among our overseas trading partners. Weaker economic activity among our overseas trading partners such as China, India, Japan, the Euro area, and the USA decreases aggregate demand. A slowdown in economic activity in these countries has resulted in a fall in demand for our exports, reducing the level of net export spending ($X-M$) and the level of aggregate demand, sales, national production and economic growth. These slowdowns in economic activity resulted in reduced demand for world commodities and the price of exports, leading to a reduction in the value of Australian exports. The overall impact was to reduce spending on goods and services in the Australian economy, slowing the rate of economic growth. Another aggregate demand-side factor that has affected Australia's rate of economic growth is low wages growth over the years from 2016–22. Wages growth has averaged 2.2 per cent per annum over these years, compared with an average wage growth of 2.6 per cent over the previous five years. The optimum rate of economic growth occurs when AD is sufficient to cross AS at the full employment level of production (GDP_1). Weaker economic activity overseas is a weak demand-side condition and there will be a fall in AD to AD_0, slowing the rate of economic growth.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		 Another aggregate demand-side factor that has affected Australia’s rate of economic growth is low wages growth over the years from 2013–19. Wages growth has averaged 2.2. per cent per annum over these years compared with an average wages growth of 3.3 per cent over the previous five years. Lower wages give the household sector less spending power, and can impact on consumer confidence, and thus aggregate demand. Reduced aggregate demand slows economic growth rates, because it can reduce the levels of production of goods and services by firms that fear that they will be stranded with excess stocks. In the graph below, the continuation of low wages growth is likely to move the AD curve gradually from AD_1 to AD_0, representing under-utilisation of resources in the economy.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
5c	2	The productive capacity of the economy refers to the ability of the economy to actually produce goods and services. It is the economy's physical limit or potential to produce goods and services when all the scarce resources in the economy (land, labour and capital) are used to maximum efficiency. The quantity and quality of the resources, their efficiency and the motivation of firms to actually produce the goods and services, determine productive capacity.
5d	2	Aggregate supply-side factors have impacted on Australia's rate of economic growth in the last two years. Aggregate supply-side factors or structural factors influence the economy's productive capacity or the speed at which the economy can increase aggregate supply or output. One important supply-side factor that has influenced Australia's rate of economic growth in the last two years is the overall slowdown in the rate of increase in labour productivity. Labour productivity, for example, is measured by the GDP per hour of labour. Rises in productivity in the last four years have been around 29 per cent slower than in the 1990s, the average rise being 1.5 per cent as compared to 2.1 per cent in the early part of this decade. This limits the growth in the productive capacity and the rate of economic growth. A second supply-side factor has been the bottlenecks in skills and infrastructure. In recent years,

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		Australia's economic growth has been slowed by the existence of bottlenecks or restrictions on the supply of skilled labour and economic infrastructure. This has restricted the ability of the economy to increase its productive capacity and the production of goods and services.  The less favourable supply-side conditions of lower rates of productivity growth and bottlenecks in skills and infrastructure in the long-term limit the economy's productive capacity (AS_2 to AS_1) and retard economic growth (GDP_2 to GDP_1).
5e	2	Economic growth can be defined as an increase in the real value of final goods and services in the economy over a given period of time, usually a year. Students need to explain how two of the following factors would be likely to affect Australia's rate of economic growth: i. <i>Falling oil prices</i> (e.g. 2013–19) are a favourable aggregate supply-side factor because oil is used in the production of many different types of goods. If the cost of oil falls, costs of production decrease, increasing profitability and the

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		willingness of producers to produce. This will cause an increase in aggregate supply, which accelerates the sustainable rate of economic growth. ii. <i>A 30 per cent fall in the terms of trade following the crash in commodity prices in 2013–16, followed by a 4.8 per cent rise during 2016–17–18–19.</i> The terms of trade represents the ratio of general prices received for our exports relative to the general prices we pay for imports. It is regarded as an aggregate demand factor because the prices we receive or pay in international transactions affect the value of our exports and imports. A fall in the terms of trade index tends to reduce the value of our exports relative to imports. A fall in the terms of trade caused by the price of exports falling, as indicated by the crash in commodity prices, means that imports are more expensive relative to the prices of exports. More expensive import prices might be expected to reduce demand for imports. This reduction in demand for imports is likely to be reflected in weaker aggregate demand. A decrease in consumer spending causes aggregate demand to slow, which curbs economic growth. Falling export prices might be expected to reduce incomes of exporters and therefore reduce their profit. In turn, firms might cut production and defer new investment, slowing Australia's rate of economic growth. The 4.8 per cent rise since 2016 has the opposite impact. It provides additional revenue for commodities exporters, can encourage additional investment in new capacity, and contribute to improved economic growth. iii. <i>Labour productivity</i> measures the output per unit of labour normally measured by total GDP divided by the number of hours worked by all employed workers per year. A low rate of growth in labour productivity acts as an adverse aggregate supply-side factor because it increases real unit labour costs, limits the productive capacity of the economy and slows Australia's sustainable rate of economic growth. iv. As a demand-side factor, <i>a drop in real net disposable income per capita</i> will slow expenditure. The level of unsold stocks would rise, and new orders would disappear. In this case, firms would cut production and defer new investment, slowing Australia's rate of economic growth.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		v. <i>Higher levels of unemployment</i> act as both a weaker aggregate demand-side and a less favourable aggregate supply-side factor. As a demand-side factor, a higher rate of unemployment will decrease private consumption expenditure in the economy because the level of aggregate income of the household sector is falling and consumer confidence would be weaker. A decrease in consumer spending causes aggregate demand to slow, which curbs economic growth. A higher unemployment rate can act as a less favourable aggregate supply-side factor because the productive utilisation rate is decreasing. The economy is using less of its productive capacity, meaning it will not produce as many goods and services and economic growth will slow. One offsetting aspect of higher unemployment as an aggregate demand factor is that it may also slow the growth in wage costs, thereby improving supply-side conditions. vi. <i>Infrastructure bottlenecks and labour shortages</i> are an adverse supply-side factor. Shortages of skilled labour and economic infrastructure (including adequate water supply, power generation, ports and transport) restrict growth in the productive capacity of the economy, limiting the ability of the economy to produce goods and services. This slows economic growth in the economy. vii. <i>A higher rate of business bankruptcies</i> is an unfavourable supply-side factor that means firms become less able to produce and expand. This limits the productive capacity of the economy and slows Australia's rate of economic growth. viii. <i>Proposed increases in government funding for national infrastructure projects for 2018–19 onwards</i> is a favourable aggregate supply-side factor because the projects will alter the economy's productive capacity or the sustainable speed limit at which aggregate supply or national output can grow. New infrastructure will allow firms to be able to produce and expand. This will cause an increase in aggregate supply, which will accelerate the rate of economic growth. ix. The trade weighted index (TWI) is an overall guide to the value of the Australian dollar against a basket of other currencies, each weighted according to their relative importance in Australia's trade. <i>A 21 per cent fall in the TWI</i> means that exports are less expensive and more attractive to overseas buyers, which increases the demand for

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		Australian exports. It means that imports are more expensive, reducing the demand for imports. The net effect ($X-M$) is to increase net exports, which increases aggregate demand and the production of goods and services. This accelerates economic growth. As a supply-side factor, a depreciation of the exchange rate raises the price of imported raw materials and capital goods, adding to costs of production. This is an adverse supply-side factor because it reduces the profitability of firms and their desire to produce goods and services. This may reduce AS and slows economic growth.
5f	2	Higher rates of business bankruptcies means that more businesses are finding it impossible to continue to operate and are going out of business. This is an aggregate supply factor, as with more bankruptcies there will be fewer businesses producing in the economy, which reduces our productive capacity and as a result aggregate supply. With fewer businesses producing, Australia will experience lower rates of economic growth.
6a	2	For most of the time period, Australia experienced a relatively stable level of quarterly growth, with the data varying between 0 and 1%. However, by June 2020 the number of was negative, and then became a significant negative of over 6% in Sep 2020. In recent years it has been quite variable; generally being quite high (e.g. nearly 4% in March 2022) but also fell to -2% in Dec 2021.
6b	2	The Australian government aims to achieve an annual growth rate of around 3% GDP per year. Generally, Australia has been below this goal, with all years except for 2021–22 recording a figure of below 3%.
6c	5	In the years from 2015–2016, while our growth was slightly below the goal, it was still quite strong, indicating more economic activity and production was taking place each year. To meet the rising level of production, more resources would have been used in the production process, with more labour being employed. This would see a fall in the unemployment rate. As unemployment fell and more people earned factor income, demand could also be expected to rise, which may see some inflationary pressure beginning to build. However, with the onset of the COVID-induced pandemic and the very low GDP figures, the opposite would have occurred. With less demand and consumption, less production was required. This saw people lose their jobs and

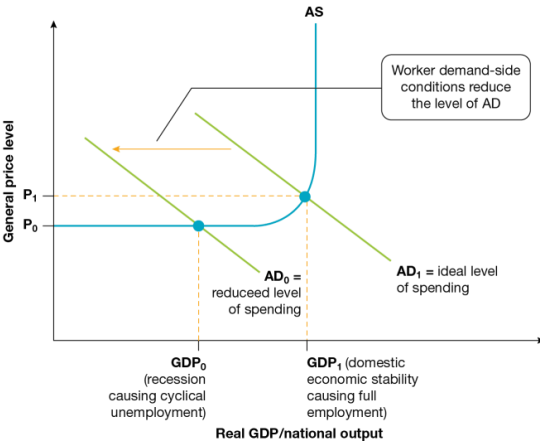
Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		unemployment rose. With limited demand and a lot of spare capacity within the economy, prices began to fall and there was even the possibility of deflation (where the general level of prices fall). In contrast, during the post-COVID recovery, the opposite again occurred. Demand rose, production rose, and unemployment fell significantly. Inflation occurred as households spent the money they had saved during the pandemic, leading to demand-driven inflation.
7a	2	The goal of strong and sustainable economic growth is to achieve a rate of 3% GDP per year. This economy has generally failed to achieve this goal. While it did so in years 1 and 2, it experienced a significant contraction (or even a recession) with a figure of 3 in year 4. However, after this, it experienced a significant rapid expansion in economic activity, leading to a likely boom with GDP reaching an unsustainable 11% in year 8.
7b	2	In year 4 economic production fell to 4 per cent. With a contraction in activity, less production is required, meaning less labour will be utilised and unemployment will be rising.
7c	2	During these years economic activity is rapidly expanding, to a peak of 11 per cent in year 8. In such a booming economy demand would be extremely high and increasing, most probably at a rate significantly higher than aggregate supply. If demand grows faster than supply, then prices will be rising, and this economy would likely experience high rates of inflation.
7d	2	During these booming years, production would be rapidly increasing. This could see an increased degradation of existing natural resources and the increased use of fossil fuels in order to quickly meet the extra needs of producers. This is likely to see higher rates of pollution and fewer natural resources available for future consumption.

2.11 ACTIVITIES

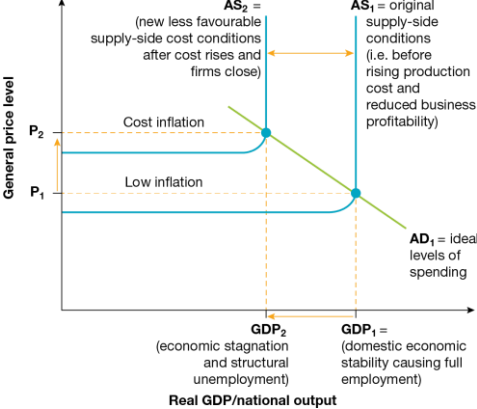
Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	4	The government's goal of full employment refers to the lowest rate of unemployment that will not cause inflation to accelerate. Here, there would be no cyclical unemployment caused by weak demand-side conditions, deficient levels of AD or recession. The government's current target of an acceptable unemployment rate of about 4.0 to 4.5 per cent recognises the partially unavoidable existence of a low level of natural unemployment (NAIRU) caused by structural (the main cause), frictional, seasonal and hard-core factors, and changing aggregate supply-side structural conditions.
2a	1	The labour force includes people who are classified as employed (in paid work for one hour or more a week) as well as those who are classified as unemployed (without paid employment but actively seeking employment).
2b	1	The unemployment rate is measured as the percentage of people unemployed as a proportion of the total number of people in the labour force.
2c	1	The participation rate is the proportion of all people aged 15 years and over who are in the labour force.
2d	1	Underemployment (also called disguised unemployment) is where individuals are classified as employed because they have jobs (i.e. they work 1 hour per week or more) but, in a way, are partly unemployed since they are not working to capacity (i.e. normally 35 hours per week) and would like to work more hours.
3	2	Hidden unemployment includes people who would like to work but are discouraged from seeking jobs for various reasons — such as a repeated failure to find work — and who have left the labour force and are therefore no longer 'actively looking for work'. For this reason, they are no longer counted as part of the labour force and hence, differ from those who make up the disguised or underemployed who are still part of the workforce.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
4a	4	Calculations for labour force estimates, June 2021 (showing formulae and basic working): i. Size of the labour force = employed + unemployed $= 13\,154\,200 + 679\,100$ $= 13\,833\,300 \text{ persons}$ ii. Unemployment rate = unemployed / labour force $= 679\,100 / 13\,833\,300 \times 100$ $= 4.91\%$ iii. Employment rate = employed / labour force $= 13\,154\,200 / 13\,833\,300 \times 100$ $= 95.1\%$ iv. Participation rate = labour force / total number of persons aged over 15 years $\times 100$ $= 13\,833\,300 / 20\,896\,200 \times 100$ $= 66.2\%$
4b	7	i. Labour market conditions relate to conditions of levels of demand for labour relative to the supply of labour, and these may become weaker, stronger or ideal.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		ii. Responses will vary according to whether students use the most recent data found on the ABS website or statistics drawn from the table. The data would indicate that over the past two years the labour market has strengthened and can by mid-2022 be considered to be a strong labour market. Since 2020, unemployment has fallen from 7.4% to 3.5%, underemployment has fallen from 11.7% to 6.1%, and this has occurred despite more seeking employment (as evidenced by the participation rate increasing from 64% to 66.8%). iii. During the last two years, the unemployment rate has fallen from 7.4% in 2019–20 to 3.5% in 2021–22. Given that the goal is to have an unemployment rate of between 4% to 4.5%, the government was failing to achieve this goal in 2019–20 but can now be seen as achieving the goal (or possibly even ‘over-achieving’ with unemployment now lower than the desired rate).
5	2	Unemployment can be caused by both aggregate demand-side (cyclical) and by aggregate supply-side (structural) factors in the economy. Cyclical unemployment occurs where the level of aggregate demand is insufficient to ensure a full employment level of production. Weak AD leads to rising stocks and firms cutting production, slowing economic growth and possibly leading to recession. This reduces the demand for labour and hence adds to cyclical unemployment. By contrast, less favourable aggregate supply conditions cause firms to close or relocate, leading to higher structural unemployment.
6a	4	Students could identify and explain aggregate demand-side factors that have affected Australia’s labour market conditions during the last two years including consumer confidence, business confidence, disposable income, population growth, the effects of taxes and outlays in the budget, interest rates and the RBA’s monetary policy, the exchange rate for the Australian dollar, overseas economic activity and the terms of trade. For example, one demand-side factor that influences aggregate demand and cyclical unemployment is the level of consumer confidence or sentiment. Consumer sentiment is the household optimism about future employment and incomes and affects savings levels and private consumption expenditure. There is evidence that consumer

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		confidence has been falling from 2016 through to 2019, and this has caused a rise in the household savings ratio and a fall in private consumption spending. This means that aggregate demand will continue to slow, causing stocks to rise, firms to cut production and their demand for resources, increasing cyclical unemployment. A second aggregate demand-side factor is mostly weak overseas economic conditions, especially in China, India, the United States, Japan and Europe. These factors slow Australia's export quantities, depress commodity prices and the terms of trade, thereby curbing aggregate demand, causing higher stocks where firms cut production levels and lower employment of resources. This depresses our cyclical level of economic activity. The effects of changing aggregate demand-side conditions on the level of economic activity and the rate of cyclical unemployment can be illustrated on an AD–AS diagram. The figure below shows that if mostly weaker demand-side conditions cause expenditure on Australian-made production to fall below the economy's productive capacity (from AD_1 to AD_0), then national production and employment will fall (from GDP_1 to GDP_0) causing cyclical unemployment to rise.  The diagram is an AD-AS model. The vertical axis is labeled 'General price level' and the horizontal axis is labeled 'Real GDP/national output'. A vertical blue line is labeled 'AS'. Two downward-sloping green lines represent aggregate demand: the outer one is labeled 'AD_1 = ideal level of spending' and the inner one is labeled 'AD_0 = reduced level of spending'. An orange arrow points from AD_1 to AD_0. A text box with an arrow pointing to this shift says 'Worker demand-side conditions reduce the level of AD'. The initial equilibrium is at the intersection of AD_1 and AS, corresponding to price level P_1 and output GDP_1 (domestic economic stability causing full employment). The new equilibrium is at the intersection of AD_0 and AS, corresponding to price level P_0 and output GDP_0 (recession causing cyclical unemployment). Dashed lines connect these points to their respective values on the axes.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		How weaker aggregate demand-side conditions that slow AD and GDP can cause higher levels of cyclical unemployment
6b	4	Students should identify and explain aggregate supply-side factors that have affected Australia's unemployment rate during the last two years, including business closures and costs of production, microeconomic reforms, use of new technology, productivity growth, mismatch of skills among the unemployed, recent government aggregate supply-side policies, floods and droughts and other climatic conditions. For example, one aggregate supply-side factor is the ongoing microeconomic reform (e.g. trade liberalisation involving FTAs and tariff cuts) and globalisation which requires constant structural change by Australian firms and industries. To survive and increase business profitability, firms have to cut costs and become more dynamically efficient. This has also meant that some firms have moved operations offshore to cut costs, such as the setting up of call centres in countries such as the Philippines, Malaysia and Thailand. It has also resulted in automotive manufacturers such as GM, Ford and Toyota closing down their Australian manufacturing operations. An aggregate supply-side factor affecting Australia's unemployment is the effect of persistent droughts and floods, bushfires and wild weather events in various parts of Australia. These have adverse aggregate supply-side effects. Droughts cause reduced employment in rural areas as farm production falls, causing structural unemployment to occur. The floods and storms (e.g. floods in Queensland, NSW and Victoria in 2022) destroy crops, close mines, and can take out road, rail and power infrastructure and hence limit our productive capacity, restricting domestic and export production and slowing the sustainable rate of economic growth. The AD–AS diagram shown below can be used to illustrate the effects of higher production costs on the level of structural unemployment. Less favourable supply-side conditions shift the AS line inwards and to the left (from AS_1 to AS_2). Rising costs of production can force firms to increase their prices, resulting in cost inflation (prices rise from P_1 to P_2). Cost pressures can also reduce the competitiveness and profitability of local firms. As a result, some businesses will close down and staff may lose their jobs as national output falls (the shift from GDP_1 to GDP_2).

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		 How less favourable aggregate supply-side changes involving rising production costs, lower profits and business closures can cause higher levels of structural unemployment
6c	4	The following aggregate demand-side factors and aggregate supply-side factors affected Australia's labour market conditions in the following ways: i. Real unit labour costs (RULCs) are an aggregate supply-side factor. RULCs are the average wages paid per worker, relative to the average value of output produced per worker, measured over a period of time. Overall Australia's RULCs have fallen. This means that labour costs per unit of output are lower, so this is a more favourable aggregate supply-side factor. The cost of producing each unit of output falls, increasing company profits and our international competitiveness. As a result, there should be a tendency for fewer firms to close down rather than expand, thereby increasing employment and cutting structural unemployment. This could help to strengthen labour market conditions. ii. The level of international economic activity among Australia's key trading partners affects the volume and prices of Australian exports, and as such is an aggregate demand-side factor. As China is Australia's largest trading partner, a decline in China's rate of economic activity would have a significant impact on Australia. Lower Chinese growth

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		would see fewer Australian exports sold to China and would also be reflected in weaker terms of trade and commodity prices. As a result of weaker export growth, our level of AD and economic activity would slow, reducing the demand for resources by firms and leading to higher cyclical unemployment in Australia, and overall weaker labour market conditions. iii. Consumer confidence or sentiment relates to household expectations about future income, employment prospects and inflation. It is an aggregate demand-side factor that affects household savings ratios and consumption expenditure. Stronger consumer confidence is likely to have resulted in decreased savings, an increase in private consumption expenditure and aggregate demand, production, and the demand for labour, leading to lower cyclical unemployment as more jobs are created to meet the extra production required. iv. The exchange rate is the price at which the Australian dollar is swapped for other currencies so as to permit international transactions. The exchange rate is both an aggregate demand-side and an aggregate supply-side factor. As a demand-side factor, the exchange rate affects the attractiveness and hence the value of exports against imports. For example, when there is a depreciation of the Australian dollar (e.g. a fall in the TWI representing a measure of the exchange rate for the Australian dollar), exports will increase (as it costs overseas buyers less to purchase the Australian exports) and imports will decrease. This will cause an increase in aggregate demand and the level of economic activity, reducing cyclical unemployment. As a supply-side factor the depreciation of the Australian dollar (e.g. a fall in the TWI representing a measure of the exchange rate for the Australian dollar) causes the production costs of some local firms using imported equipment and materials to increase, reducing the profits of firms and their willingness to produce goods and services, which will reduce employment. However, it is also possible that a lower Australian dollar may make local firms more competitive against expensive imports, leading to businesses performing well, less unemployment and stronger labour market conditions. v. With the end of COVID-19 pandemic lockdowns, households are able to increase their consumption in areas previously denied to the (e.g. eating out, travel, entertainment). This sees more demand in these industries and

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		businesses will be required to employ more staff to meet this extra demand. This will mean less unemployment and a stronger labour market.
7a	1	The labour force under-utilisation rate measures the extent to which the available labour in the economy is not working to its capacity. This is equal to the unemployment rate plus the underemployment rate. Underemployment is where individuals with a job are working below their skill level or are not working the number of hours that they desire.
7b	1	Under- --utilisation rate = unemployment rate + underemployment rate $= 4.5\% + 4.8\%$ $= 9.3\%$
8a	2	With 10% unemployment, a significant number of people will be relying on transfer income from the government, which will be less than the factor income earned through employment. This will worsen the distribution and make it more uneven, as the gap in income between those with jobs and those without grows.
8b	2	With more people reliant on transfer income, people will have less disposable income with which to access goods and services. This reduces material living standards. Further, this will cause financial stress on many households and increase levels of unhappiness and mental health problems amongst the unemployed, lowering their quality of life and non-material living standards.
8c	2	An unemployment rate of 10% will have a detrimental income on the government's finances and budget situation. Rising unemployment sees more people dependent on transfer income, which will increase government expenditure. Simultaneously, the government will receive less income tax revenue as fewer people are earning factor income.

2.12 ACTIVITIES

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	3	<i>Low inflation</i> — the goal of low inflation (also called price stability) means achieving a slow annual inflation rate averaging around 2–3 per cent over the medium-term or economic cycle. Unfortunately, inflation sometimes exceeds this target due to two causes: demand inflation, which can be caused by excessively strong demand-side conditions or aggregate demand, causing widespread shortages of goods and services in a fully employed economy; and cost inflation, which is caused by rising production costs and less favourable supply-side conditions for businesses that flow on to higher consumer prices as firms try to protect their profits. The inflation rate is measured by the headline consumer price index, or CPI, which looks at the average weighted price change in a basket of goods and services typically purchased by metropolitan households. However, there are limitations to the accuracy of this measure. A second key measure of the inflation rate is the underlying inflation rate (also called the core inflation rate). The underlying inflation rate can be measured by removing volatile items affected by one-off events, such as some fresh food items, from the normal CPI regimen in order to obtain an inflation rate that is more truly reflective of ongoing changes in the level of prices. The ABS and the RBA each prepare measures of the underlying inflation rate. <i>Strong and sustainable economic growth</i> — the goal of strong and sustainable economic growth means the fastest rate of growth in national production — averaging around 3 per cent a year or a little more — that is consistent with achieving other government economic goals (including external stability and low inflation). It takes into account environmental sustainability and the impact on future generations. Economic growth is measured by the chain volume gross domestic product (real GDP), where the effects of price changes on the value of national production have been statistically removed, thereby facilitating comparisons between different years. <i>Full employment</i> — the goal of full employment involves achieving the lowest rate of unemployment that does not cause inflation to accelerate. This means having no cyclical unemployment caused by weak demand-side conditions, deficient levels of AD or recession. The government's current target of an acceptable unemployment rate of about 5 per cent recognises the partially unavoidable existence of a low level of natural unemployment (NAIRU) caused by structural (the main cause), frictional, seasonal and hard-core factors, and changing aggregate supply-side structural

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		conditions. The unemployment rate, along with other labour market indicators (such as the under-utilisation rate, participation rate, job vacancies, duration of unemployment and youth unemployment), is measured by means of the ABS labour force survey.
2	3	Recent trends in each of Australia's key domestic macroeconomic areas during the last two years to 2022: <i>Rate of inflation.</i> The average inflation rate had been low but had reached 6.1 per cent, above the RBA's target range of 2–3 per cent a year. <i>Rate of economic growth.</i> The average rate of economic growth has been very mixed and Australia was in recession in 2020, but growth has since recovered to be 3.9 per cent in 2021–22, above the government's goal of 3 per cent. <i>Rate of unemployment.</i> The average unemployment rate has fallen to 3.5 per cent and is below the government's goal of 4 to 4.5 per cent.
3	4	Aggregate demand factors are those which affect consumption, investment, government spending, exporting, and importing in the Australian economy. They will impact the amount of goods and services Australians wish to purchase. For example, with higher disposable income (our income after tax is removed) households are more likely to spend and consume, which will raise aggregate demand and the level of economic activity. Aggregate supply factors differ as they impact the ability of an economy to produce goods and services. These factors will affect the cost of production, the efficiency of resource use and the amount of resources available for use in production. For instance, lower Real Unit Labour Costs lower the costs of production for businesses, which increases profitability and the willingness and ability of suppliers to supply, which will increase the level of economic activity.
4a	2	Australia has experienced a high rate of inflation (as high as 7.3% in September 2022), a high rate of economic growth 3.9% GDP growth in June 2022) and falling levels of cyclical unemployment (unemployment rate of 3.4% in

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		October 2022), indicating high levels of aggregate demand and economic activity. <i>Aggregate demand factors</i> have affected the following indicators in a variety of ways: (Any one of the following): Rate of inflation: Stronger demand conditions both here and overseas have led to an unplanned fall in stocks. In turn, firms have responded by increasing prices to cover the shortage, thereby raising demand inflation pressures. Confidence in both households and business has remained low (household confidence, especially, falling during 2022). Given this does not explain why inflation rose, confidence as a factor in your answers should either be removed or used with the conclusion that, rather than reducing demand inflation, it led to inflation rising by less than it otherwise might have done. Rising incomes and lower savings: Disposable income rose during 2021 and households found themselves with a large amount of accumulated savings; as pandemic restrictions ended, households were able to spend and their savings provided the capacity to spend. This saw an increase in consumption spending and AD, leading to shortages and rising demand–pull inflation. Alternatively, students could identify and outline (any one of the following): higher rates of economic activity among our major trading nations, higher commodity prices and a favourable movement in the terms of trade (raising demand inflation). Australia has experienced generally higher rates of GDP growth, lower unemployment and higher inflation. These macroeconomic trends are partly the result of a changing mixture of aggregate supply conditions. <i>Aggregate supply factors</i> have affected the following indicators in a variety of ways: (Any one of the following):

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		Rate of inflation Availability of resources: Supply chain issues have impacted businesses following the pandemic, leading to shortages in many inputs used by businesses. This has led to shortages in production and higher supply side inflation. <i>High labour costs that reduce international competitiveness.</i> In absolute terms, Australia is a high wage country. Furthermore, there are numerous on-costs of employing labour, including the superannuation guarantee charge (SGC), generous paid annual maternity and paternity leave arrangements, and other guaranteed employment conditions. Unfortunately, worker productivity is not high by international standards. This adds to real labour costs for local businesses, and contributes to cost inflation pressures. <i>Lower cost of a barrel of oil and other producer goods.</i> The price or costs of producer goods (used by Australian businesses as inputs in the manufacture of other goods) have recently risen quite slowly. For example, recently oil prices have generally been much lower, as have some other mineral commodity prices. This is a favourable aggregate supply factor for users of oil. It has allowed some firms to produce at a lower cost, thereby keeping inflation in check. <i>Severe weather events and climate change.</i> In recent years, there has been a lot of publicity about climate change caused partly by the release of carbon dioxide emissions into the atmosphere. This has resulted in global warming, and severe weather events such as droughts, cyclones, floods and fires. In turn, these less favourable supply-side conditions are limiting Australia's productive capacity by destroying public infrastructure such as roads, power and rail systems, along with farms, mines and other industries such as tourism in the affected regions. These conditions have noticeably slowed our rate of economic growth and added to cost inflation. Alternatively, students could identify and outline generally slower growth in productivity (resulting in production costs rising more quickly and cost pressures accelerating), an ageing population and declining labour participation rate (resulting in the generation of labour shortages or bottlenecks that put upward pressure on wages and add to cost inflation pressures), government regulations, red tape and bureaucracy (which create expensive compliance

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		costs, adding to inflationary pressures when firms pass them on to their customers in order to protect profit margins), or bottlenecks in infrastructure (adding to business costs). Availability of resources: supply chain issues have impacted businesses following the pandemic, leading to shortages in many inputs used by businesses. This has led to shortages in production and higher supply-side inflation. Lower exchange rate: In response to a rising US dollar, the Australian dollar has fallen in relative terms. This makes importing more expensive; given around 70% of Australian imports are used by businesses in the production process, this leads to higher cost of production and cost-push inflation.

4b	2	Australia has experienced a high rate of inflation (as high as 7.3% in September 2022), a high rate of economic growth (3.9% GDP growth in June 2022) and falling levels of cyclical unemployment (unemployment rate of 3.4% in October 2022), indicating high levels of aggregate demand and economic activity. <i>Aggregate demand factors</i> have affected the following indicators in a variety of ways: (Any one of the following): Rate of economic growth — the stronger growth in AD and falling stocks have caused many firms to cut production, thereby increasing the growth rate in our GDP. <i>Expansionary budgets:</i> For the past three years, the government's budgets have been in deficit and increased the level of injections into the economy. Higher payments to welfare recipients and higher levels of government spending have increased aggregate demand and led to higher levels of economic activity. <i>Higher rates of economic activity among our major trading nations, higher commodity prices and stronger terms of trade.</i> Global economic activity has been higher than usual, especially among Australia's important trading partners — Japan, Korea, the United States, the Euro zone and particularly for our major customer, China. More resources were needed overseas for production. Stronger demand from abroad increased the value of Australia's exports of commodities. It also led to us receiving higher commodity prices, thereby increasing the terms of trade. This led to increased revenue for mining companies, who increased production. Export revenue also rose, increasing aggregate demand and economic activity. Australia has experienced generally higher rates of GDP growth, lower unemployment and higher inflation. These macroeconomic trends are partly the result of a changing mixture of aggregate supply conditions. <i>Aggregate supply factors</i> have affected the following indicators in a variety of ways: (Any one of the following):
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Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		Low wage costs: Wage rates have remained low in Australia, helping to keep the cost of production at a manageable level for producers. This will encourage businesses to increase their level of production and assist to increase the rate of economic growth. Company taxes: the company tax for small to medium-sized businesses has fallen to 25%. This lowers production costs for businesses, making supply-side conditions more favourable. It also provides an incentive for businesses to increase production, which raises economic activity and the rate of economic growth.
4c	2	Australia has experienced a high rate of inflation (as high as 7.3% in September 2022), a high rate of economic growth 3.9% GDP growth in June 2022) and falling levels of cyclical unemployment (unemployment rate of 3.4% in October 2022), indicating high levels of aggregate demand and economic activity. <i>Aggregate demand factors</i> have affected the following indicators in a variety of ways: (Any one of the following): Rate of unemployment: Generally stronger demand conditions and higher economic activity have meant that businesses increased their demand for resources, including labour. This has led to lower rates of cyclical unemployment and stronger labour market conditions. Demand factors which result in a higher demand for labour and a reduction in unemployment are: Rising incomes and lower savings: as disposable income rose during 2021 and households found themselves with a large amount of accumulated savings, as pandemic restrictions ended households were able to spend and their savings provided the capacity to spend. This saw an increase in consumption spending and AD, leading to higher levels of production and an increased derived demand for labour, which lowers the rate of cyclical employment.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		Alternatively, students could identify and outline (any one of the following: higher rates of economic activity among our major trading nations, higher commodity prices and a favourable movement in the terms of trade, all of which increase economic activity and reduce cyclical unemployment. Australia has experienced generally higher rates of GDP growth, lower unemployment and higher inflation. These macroeconomic trends are partly the result of a changing mixture of aggregate supply conditions. <i>Aggregate supply factors</i> have affected the following indicators in a variety of ways: (Any one of the following): Availability of resources: With little to no skilled immigration during 2020–22, Australia saw a reduction in the amount of workers available to work. This lack of supply has led to a strong labour market and numerous shortages, which has helped people seeking work to find employment and led to a decrease in the rate of unemployment. Low wage costs: Wage rates have remained low in Australia, helping to keep the cost of production at a manageable level for producers. This will encourage businesses to increase their level of production and hire additional staff, which has contributed to a reduction in the unemployment rate. Company taxes: The company tax rate for small to medium-sized businesses fallen to 25%. This lowers production costs for businesses, making supply-side conditions more favourable. It also provides an incentive for businesses to increase production, which requires more staff to be hired and helps to contribute to the lower rate of unemployment.
5	4	Generally Australia's domestic macroeconomic conditions would have had a negative impact on Australian living standards during the period from 2020–22.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		The generally low levels of economic growth, especially during the recession, resulted in decreased spending and incomes. This, combined with less opportunity to spend during lockdowns, combined to decrease the ability of households to access goods and services, reducing material living standards. During the recession, unemployment and underemployment increased, which led to further loss of incomes, reduced access to goods and services and lower material standards. Furthermore, this caused financial stress for many households and businesses which, combined with some of the other effects of the pandemic, increased unhappiness and mental health problems, reducing quality of life and non-material living standards. However, unemployment has dramatically fallen since the end of the recession, leading to more people earning factor income and improving their material living standards, and with more people finding work and job security improving, non-material living standards also improved. Inflation has also had an impact on living standards. When inflation was very low in 2020 households which were able to maintain or increase their income would have been able to access more goods and services, improving their material living standards. With inflation very low the RBA was able to keep interest rates at historically low levels, which was of further benefits to any households with debts or who were participating in credit-based purchasing. Those households reliant on living from their savings and investments, however, experienced a decrease in their income as interest rates fell. Since 2021, inflation has rapidly increased (to 6.1% by mid 2022) which decreases purchasing power and reduces material living standards. This rapid rise in inflation led to a swift increase in interest rates, which disadvantages those households with large debts as their interest repayments rose and their discretionary income fell.

UNIT 3: AUSTRALIA'S LIVING STANDARDS

AOS: 3 Australia and the international economy

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3.2 ACTIVITIES

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i> \
1	4	There are several ways whereby the growth of global trade (partly assisted by trade liberalisation policies) might have a <u>positive effect on overall living standards</u>, including: <i>Trade can encourage international specialisation</i> — international specialisation occurs when countries produce only a limited range of goods and services, focusing on those areas where they have the greatest comparative cost advantage. These goods and services can then be exported, and the income gained used to pay for imports that are too expensive to produce locally. By putting its resources to work in their most productive or efficient use, a nation can generate more output (GDP) from the same inputs (resources), and in so doing raise its income and material living standards. Absolute cost advantage occurs if a nation is the cheapest or most efficient producer of a single good or service in the world. Comparative cost advantage occurs if a nation specialises in a few key areas of production where its cost advantages are greatest, or its disadvantages and opportunity costs are lowest. <i>Trade promotes economies of large-scale production</i> — economies of large-scale production are reductions in a firm's average fixed costs per unit associated with an increase in its production levels, perhaps enabled by trade liberalisation. Fixed costs such as equipment, product design, research, advertising and (up to a point) management can be spread more thinly when there are larger production runs. What international trade can do is encourage specialisation and help businesses grow their sales volumes by allowing them to produce on a much larger scale — for a potential global market of up to 7.4 billion people instead of only the local market. In turn, this would lower fixed costs, strengthen competitiveness, grow incomes and boost material living standards. <i>Trade helps lower prices for consumers</i> — the rapid growth of international trade (assisted by trade liberalisation or reduced protection of local industry) has tended to slow inflation rates. Recent case studies have shown that when tariffs come down, they cause the volume of global trade to increase while reducing the average annual inflation rate for the same period. Freer and more open international trade has generated windfall gains for people around the

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i> \
		world by increasing their purchasing power. There are several reasons why the growth in global trade has generally been associated with lower prices. Freer trade allows: • access to the cheapest suppliers • increased local competition • reduced market power • increased wage competition • economies of large-scale production. Trade boosts GDP and incomes — nations with open economies who have adopted the principles of trade liberalisation (combined with certain other policy measures) are far more likely to have higher levels of efficiency, national output and hence per capita incomes than those with trade barriers, particularly in the longer term. This can occur for several reasons. Freer trade encourages: • greater efficiency • economies of scale • innovation • imports of capital. Trade can create jobs — increased international trade creates jobs and lowers unemployment, especially in the long-term. Trade increases efficiency in resource allocation, lowers production costs, strengthens business profitability and expansion, and boosts economic growth. This should create more jobs, reduce unemployment, lift average incomes and improve both material and non-material living standards. In the short-term, it is possible that the growth in trade (facilitated by trade liberalisation measures) might cause a rise in structural unemployment as uncompetitive firms close down, relocate to low-wage countries or restructure their production by substituting machines for workers. When this occurs, living standards could fall temporarily.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i> \
		Trade enables access to more resources — it is through trade or exchange that a country can access the resources, goods and services that it lacks or cannot produce itself, for the lowest possible price. International trade grows the quantity and quality of resources available to local businesses, allowing them to boost their production. Similarly, by growing businesses, jobs, incomes and profits, trade allows governments to access and pay for the various types of resources it needs to produce public goods and infrastructure such as transport, education, health and defence, thus improving our living standards. Trade means greater consumer choice — international trade has created a shopper's paradise that should increase the extent to which wants can be satisfied. Consumers now have an exciting smorgasbord of offerings from which to choose when buying clothes, cars, cosmetics, computers, holidays or foods. The range of goods and services is so wide that it would be impossible for any single country's producers to cater efficiently for all tastes. Having freer access to imports solves this problem and helps to raise living standards. Trade can promote peace — trade brings people from different countries together and creates dialogue, understanding and cooperation. In addition, it encourages nations to have cordial relationships with each other to promote exports and to maintain the supply of needed imports. Some studies have shown that when there are economic opportunities to improve incomes and living standards, civil war and conflict are less likely. This especially improves non-material living standards. Trade enriches culture — trade creates a great diversity of goods and services that enriches the culture of nations and leads to more vibrant and interesting societies. This supports non-material living standards. Trade has mixed effects on income distribution — around the world it has been observed that although real incomes have generally increased, there has been a rise in income inequality coinciding with the accelerated growth in international trade. This has provoked academic debate about whether trade is responsible for this. By accelerating economic growth, creating jobs and suppressing inflation, global trade is likely to have led to higher real per capita incomes, purchasing power and living standards for many. In addition, trade has increased government revenues, making it more affordable for governments to provide better education, health and economic infrastructure that is required for economic growth.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i> \
		There are several ways whereby the growth of global trade (assisted by trade liberalisation policies) may <u>negatively affect general living standards</u>, including: <i>Trade can increase economic instability</i> — with growing dependence on international trade, momentous economic events can spread globally and drag other nations into recession. In turn, this causes rising unemployment, falling incomes and depressed living standards across the world. The opposite is true, too: if overseas conditions are strong, these can help offset periods of weak domestic economic activity locally and reduce instability, helping to maintain living standards. <i>Trade can weaken the environment and living standards</i> — by growing exports and accelerating production, trade can have adverse direct and indirect effects on the environment both now and into the future: • Natural and other resources will be depleted and degraded at a faster rate. • Carbon emissions from production and the transportation of goods will increase, accelerating climate change and severe weather events, along with the pollution of rivers and soils. • The growth of cities is likely to quicken, creating a host of urban problems, including overcrowding, waste disposal, transport congestion, injury from disasters and reduced health outcomes. With weaker environmental outcomes, material and especially non-material living standards are likely to suffer. <i>Trade can prevent the development of new infant industries</i> — the liberalisation and growth of trade exposes domestic industries to stronger competition from (often) cheaper imports. This can discourage the growth of domestic infant industries, which typically have higher production costs and limited cash flow during their start-up phase than well-established foreign rivals. As a result, growth in capacity and job creation may be limited, with negative consequences for economic activity and therefore living standards.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i> \
		<i>Trade can have negative effects on income distribution</i> — around the world it has been observed that although real incomes have generally increased, there has been a rise in income inequality coinciding with the accelerated growth in international trade. This has provoked academic debate about whether trade is responsible for this. Experience from particular countries, especially over the shorter term, shows that the rise in global trade (facilitated by trade liberalisation and structural reforms) may have contributed to lower incomes and greater inequality. This could be due to the effect of stronger competition from imports depressing real wages by driving up the local price of basic food. This occurs when domestic producers are encouraged to sell overseas, where they can get better prices for their crops than by selling them locally. In addition, trade has caused some local businesses to close down, possibly leading to structural unemployment and lower living standards.
2a	2	There has been a spectacular growth in global trade in recent decades because of trade liberalisation, openness, and a greater recognition of the benefits of international trade. Trade liberalisation is a government policy that entails reducing protection of local industry by cutting tariffs, subsidies and import quotas, and the signing of free trade agreements (FTAs). Reducing the level of trade protection by cutting tariffs and thereby making foreign goods cheaper, reducing government cash subsidies paid to local firms and so allowing imports to compete on the same basis as locally manufactured products, abolishing import quotas that restrict the volume of foreign goods entering the country, and signing up to more bilateral and multilateral FTAs with other countries is seen by many countries as being beneficial for improving efficiency and living standards.
2b	11	i. Trade can encourage international specialisation. International specialisation occurs when countries produce only a limited range of goods and services, focusing on those areas where they have the greatest comparative cost advantage. These goods and services can then be exported, and the income gained used to pay for imports that are too expensive to produce locally. By putting its resources to work in their most productive or efficient use, a nation can generate more output (GDP) from the same inputs (resources), and in so doing raise its income and material

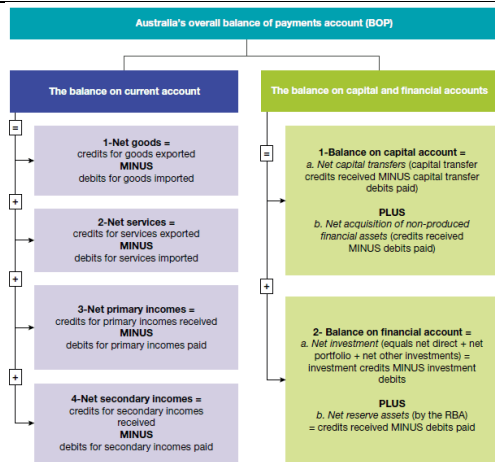
Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i> \
		living standards. Absolute cost advantage occurs if a nation is the cheapest or most efficient producer of a single good or service in the world. Comparative cost advantage occurs if a nation specialises in a few key areas of production where its cost advantages are greatest or its disadvantages and opportunity costs are lowest. [2 marks] ii. Trade promotes greater economies of large-scale production. Economies of large-scale production are reductions in a firm's average fixed costs per unit associated with an increase in its production levels, perhaps enabled by trade liberalisation. Fixed costs such as equipment, product design, research, advertising and (up to a point) management can be spread more thinly when there are larger production runs. What international trade can do is encourage specialisation and help businesses grow their sales volumes by allowing them to produce on a much larger scale — for a potential global market of up to 7.4 billion people instead of only the local market. In turn, this would lower fixed costs, strengthen competitiveness, grow incomes and boost material living standards. [2 marks] iii. Trade enables better access to more resources. It is through trade or exchange that a country can access the resources, goods and services that it lacks or cannot produce itself, for the lowest possible price. International trade grows the quantity and quality of resources available to local businesses, allowing them to boost their production. Similarly, by growing businesses, jobs, incomes and profits, trade allows governments to access and pay for the various types of resources it needs to produce public goods and infrastructure such as transport, education, health and defence, thus improving our living standards. [1 mark] iv. International trade provides access to the cheapest suppliers, which helps to lower inflation. Freer trade allows domestic households and firms to purchase goods and services from the cheapest suppliers around the world. It also increases competition among domestic producers, and encourages more efficient and lower cost production methods, which further puts downward pressure on prices. Accessing goods and services at lower prices will assist in improving material living standards. [2 marks] v. Trade means greater consumer choice. International trade has created a shopper's paradise that should increase the extent to which wants can be satisfied. Consumers now have an exciting smorgasbord of offerings from which to

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i> \
		choose when buying products. The range of goods and services is so wide that it would be impossible for any single country's producers to cater efficiently for all tastes. Having freer access to imports solves this problem and helps to raise living standards. Trade also helps to lower prices for consumers. The rapid growth of international trade (assisted by trade liberalisation or reduced protection of local industry) has tended to slow inflation rates. When tariffs come down, for example, they cause the volume of global trade to increase while reducing the average annual inflation rate for the same period. Freer and more open international trade has generated windfall gains for people around the world by increasing their purchasing power. There are several reasons why the growth in global trade has generally been associated with lower prices. Freer trade allows: - access to the cheapest suppliers - increased local competition - reduced market power - increased wage competition - economies of large-scale production. [2 marks] vi. International trade leads to greater efficiency through increased competition. Greater efficiency in resource allocation grows our productive capacity and the size of the production possibility frontier. This causes employment, real average incomes, consumption, and material living standards to be higher. Australia also gains access to technologies and capital not otherwise available in Australia; this will also lead to more economic activity and GDP, creating more jobs and income and improving material living standards (through more affordable goods and

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i> \
		services) and non-material living standards (as more people gain employment and experience improvements in self-esteem). [2 marks]

3.3 ACTIVITIES

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	4	The balance of payments account (BOP) is an annual statistical record of Australia's financial transactions with the rest of the world. The BOP account is made up of two main types of transactions, each with sub-sections: • The current account records credits and debits for goods, services, primary incomes and secondary incomes. • The capital and financial account records credits and debits for capital transactions, especially investments or the movements of money capital. <i>Please note: each of the above records credit and debit transactions.</i> Because BOP is a zero balance account, the overall balance of payments account always balances and the total value of credits is equal to the total value of debits. The BOP account for Australia can be shown through the following diagram:

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		 The diagram illustrates Australia's overall balance of payments account (BOP), which is divided into two main components: the current account and the capital and financial accounts. Australia's overall balance of payments account (BOP) The balance on current account (purple box): 1-Net goods = credits for goods exported MINUS debits for goods imported 2-Net services = credits for services exported MINUS debits for services imported 3-Net primary incomes = credits for primary incomes received MINUS debits for primary incomes paid 4-Net secondary incomes = credits for secondary incomes received MINUS debits for secondary incomes paid The balance on capital and financial accounts (green box): 1-Balance on capital account = a. Net capital transfers (capital transfer credits received MINUS capital transfer debits paid) - PLUS b. Net acquisition of non-produced financial assets (credits received MINUS debits paid) 2- Balance on financial account = a. Net investment (equals net direct + net portfolio + net other investments) = investment credits MINUS investment debits - PLUS b. Net reserve assets (by the RBA) = credits received MINUS debits paid
2	2	The current account deficit (CAD) occurs when the value of all current account debits exceeds the total value of all current account credits for goods, services, primary incomes and secondary incomes, measured over a period of time. This is typically large for Australia because we have drawn on savings from the rest of the world to finance our high levels of investment and consumption, and recorded this as a net surplus (inflow) on our capital and financial accounts. This surplus exactly offsets the deficit on the current account.
3	4	Over time, variations in the strength or weakness of our current account balance can usually be traced to changes in the business cycle of economic activity, that in turn reflect relatively stronger or weaker aggregate demand side factors or conditions both here in Australia and overseas – these are referred to as cyclical influences. Structural influences differ (from cyclical influences) as they are caused by changes in ongoing or aggregate supply-side conditions in the economy; they can also influence the strength or weakness of Australia's current account balance, especially over the longer term. Structural influences often refer to the way goods and services are produced, relative production costs for local firms, business profitability, and inflation rate and international competitiveness, relative to overseas production.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>																			
4a	2	The balance of payments (BOP) account is an annual statistical record of Australia’s financial transactions with the rest of the world. The BOP account is made up of two main types of transactions, each with sub-sections: • The current account records credits and debits for goods, services, primary incomes and secondary incomes. • The capital and financial account records credits and debits for capital transactions, especially investments or the movements of money capital. <i>Please note: each of the above records credit and debit transactions.</i> Because this is a zero balance account, the overall balance of payments account always balances and the total value of credits is equal to the total value of debits.																			
4b	12	<table><tr><th>Transaction</th><th>Major section of Australia’s BOP account</th><th>Minor sub-account</th><th>Recorded as a credit (+) or debit (–)</th></tr><tr><td>i. You purchase a laptop computer made in Korea for \$2800</td><td>Current account</td><td>Net goods</td><td>Debit (-)</td></tr><tr><td>ii. Australia sells lamb to the US and Indonesia worth \$750 million</td><td>Current account</td><td>Net goods</td><td>Credit (+)</td></tr><tr><td>iii. You donate \$50 in food aid to Ethiopia</td><td>Current account</td><td>Net secondary incomes</td><td>Debit (-)</td></tr></table>	Transaction	Major section of Australia’s BOP account	Minor sub-account	Recorded as a credit (+) or debit (–)	i. You purchase a laptop computer made in Korea for \$2800	Current account	Net goods	Debit (-)	ii. Australia sells lamb to the US and Indonesia worth \$750 million	Current account	Net goods	Credit (+)	iii. You donate \$50 in food aid to Ethiopia	Current account	Net secondary incomes	Debit (-)			
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Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>			
		iv. BHP pays \$15 million in dividends to overseas shareholders	Current account	Net primary incomes	Debit (-)
		v. The government pays \$12 million in interest on its overseas debt	Current account	Net primary incomes	Debit (-)
		vi. You make a \$10 phone call using an overseas phone company	Current account	Net services	Debit (-)
		vii. An immigrant transfers \$45 000 to an Australian bank account	Capital and financial accounts	Net capital transfers	Credit (+)
		viii. Qantas sells an old aircraft to Indonesia's Garuda Airlines for \$7 million	Current account	Net goods	Credit (+)
		ix. Grand Prix tickets worth \$4.5 million are sold to overseas visitors	Current account	Net services	Credit (+)
		x. Chinese investors purchase residential and rural property worth \$25 billion	Capital and financial accounts	Net portfolio investment	Credit (+)

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>			
		xi. James Packer buys shares in an overseas media company worth \$9 million	Capital and financial accounts	Net portfolio investment	Debit (-)
		xii. Overseas students from India, China and Thailand purchase \$5 billion of education from Australian secondary schools and universities	Current account	Net services	Credit (+)
4c	6	i. Net goods = credits for goods exported – debits for goods imported = \$395 billion – \$319 billion = \$76 billion credit ii. Net services = credits for services exported – debits for services imported = \$61 billion – \$48 billion = \$13 billion credit iii. Net primary incomes = credits for primary incomes received – debits for primary incomes paid = \$66 billion – \$84 billion = \$18 billion deficit			

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		iv. Net secondary incomes = credits for secondary incomes received – debits for secondary incomes paid = \$9 billion – \$12 billion = \$3 billion deficit v. The overall balance of payments on the current account = Net goods (credits for goods minus debits for goods) + Net services (credits for services minus debits for services) + Net primary incomes (credits for incomes minus debits for incomes) + Net secondary incomes (credits for secondary incomes minus debits for secondary incomes) = \$76 billion + \$13 billion + –\$18 billion + –\$3 billion = \$68 billion surplus vi. The overall balance of payments on the capital and financial account = Overall balance on capital and financial account = \$68 billion deficit (as it will be the opposite of the surplus on the current account)
4d	2	There is a two-way relationship between the current account and the capital and financial accounts making up the overall BOP. The overall BOP account should theoretically exactly balance, in other words, it should equal zero. That is, Australia's current account deficit (where the total value of debits exceeds credits for goods, services, primary incomes and secondary incomes) is exactly equal to or offset by a capital and financial account surplus (where the

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		total value of credits exceeds debits for net capital and investments). This directly increases our net foreign debt (NFD). The existence of ongoing CADs means that there has to be an offsetting rise in the nation's net external liabilities, consisting of foreign debt (borrowed money) and foreign equity (ownership). Here, we are essentially drawing on savings from the rest of the world to finance our high levels of investment and consumption, and recording this as a net surplus (inflow) on our capital and financial accounts.
5a	3	i. During this time period, Australia has experienced a rise in its current account balance from a deficit of approximately \$12 billion to a surplus of nearly \$20 billion. [1 mark] ii. Two reasons that are likely to account for this trend is the strong level of overseas economic growth, which increased the volume of Australian exports, and high prices for commodities (such as iron ore and coal) which increases the value of Australian exports. [2 marks]
5b	3	The savings–investment gap is the shortfall in value between what Australian households, businesses and governments save, and the level of their investment. Australian households, businesses and governments generally do not save enough to finance the high level of national investment spending by firms and governments needed to grow the economy's productive capacity and maintain high living standards. Overseas borrowing or debt must cover this deficiency, adding to our net foreign debt (NFD).
5c	8	Possible demand factors include: ii, iv, v, vii, x Possible supply factors include: i, iv, v, vi, viii Options iii and ix would also link to the structural CAD, but not via AD or AS (unless it was assumed that lower savings ratio also implied higher spending).

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		A possible aggregate demand factor would be iv, a 20% fall in the exchange rate. A falling exchange rate will make Australian exports relatively less expensive as less of the purchasers' own currency is needed in order to purchase the same quantity of exports. This would see an increase in demand for Australian exports, earning Australia more export credits. This would assist in making the Australian trade surplus even bigger, and help to account for an increase in the current account surplus. A drought in the northern and some eastern parts of Australia would be an aggregate supply factor as the drought will reduce the capacity of agricultural producers to grow crops and raise animals. With a reduction in the quantity of products available for sale, Australia's agricultural exports would fall, meaning that the trade surplus would not have grown by as much had there been more favourable agricultural conditions.

3.4 ACTIVITIES

Question	Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	1	Net foreign debt (NFD) is the difference in value between what Australia has borrowed from and owes overseas (our liabilities) minus what Australia has lent or invested abroad (our assets). It is sometimes used as an indicator of Australia's external position and includes borrowing through the issue of bonds, loans, advances and overdrafts. Net foreign equity (NFE) is the difference in value between foreign-owned Australian assets (such as property, shares and the retained earnings of overseas-owned companies operating here) and overseas assets owned by Australian residents. NFD relates to debt, which implies that there is an obligation to pay interest and, at some time in the future, to repay the original capital borrowed, whereas NFE relates to credit (the ownership of assets such as shares and property).
2	2	There are many reasons for the rise in Australia's NFD. Responses could include: • Lack of domestic savings — we have a national savings–investment gap, where current savings by Australian households, businesses and governments are not sufficient to finance our high levels of investment. This has contributed to our interest rates being high, relative to those abroad. In turn, high domestic interest rates encourage our banks, businesses and governments to borrow overseas, thereby adding to our NFD. • Many budget deficits — the recent slowdown in Australia's economic activity has led to expansionary government budget deficits (where the value of the government's budget outlays is greater than the value of budget receipts), which are designed to stimulate spending. In part, these deficits were financed by borrowing abroad, usually by selling government bonds. • Opportunities for foreign investors — because of Australia's vast natural resources, there are many opportunities for foreign investors to make high returns. Although this inflow of investment capital helps grow our economy's productive capacity, it also adds to our external liabilities. • Sound economic, political and social climate — Australia offers foreign investors a relatively stable economic and political environment, with sound infrastructure, efficient institutions (including the legal and financial systems), and an educated and skilled labour force. In addition, Australia is regarded as a good place to live and hence

Question	Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		there has been massive foreign investment in residential property. Countries such as China are also using rural investment here to enhance their food and resource security at home. This adds to our external liabilities. • A lower value for the Australian dollar — a lower Australian dollar makes the purchase of our assets (businesses, shares, property) by non-residents relatively cheaper and hence more attractive. This adds to Australia's external liabilities. • Financial sector deregulation and globalisation — in recent decades, there has been considerable financial sector deregulation. Combined with trade liberalisation, deregulation has increased overseas capital inflow and foreign ownership of assets like businesses, shares and property, despite supervision of large projects by the Foreign Investment Review Board (FIRB).
3	4	Foreign debt can have both positive and negative effects on a country. Responses could include: Sustainable levels of debt can be a good thing, providing that it is used wisely to finance investment expenditure rather than consumption spending. Foreign debt provides the following benefits: • Finance for expansion. Foreign debt can make up for a deficiency in local savings, which are needed to finance investment and business expansion, expand GDP and create new jobs. • Access to cheaper credit. As Australian interest rates are often higher than rates overseas, foreign debt can provide access to cheaper credit. • There are some downsides to foreign debt. Some costs of foreign debt are: • Creation of economic hardship. As with all debt, the main problem is repaying interest and the principal. Excessive levels of government or sovereign debt create great hardship, forcing governments to lift taxes and cut spending, contracting economic activity. As seen in some European countries such as the UK, this causes economic activity to shrink and unemployment to rise. • The burden of debt repayment. The burden of debt repayment is especially heavy if the debt is expressed in another currency and the value of the Australian dollar falls against that currency. It can mean a reduction in our credit rating and, ultimately, higher interest rates.

Question	Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		• Adds to the CAD. The NFD is the major reason for Australia's large deficit in net primary incomes and our big CAD. This ultimately weakens the currency and diminishes its purchasing power.
4a	2	Australian households, businesses and governments do not save enough to finance the high level of national investment spending by firms and governments, needed to grow the economy's productive capacity and maintain high living standards. This causes Australia to have a large, long-term national savings–investment gap and has required both foreign borrowing and foreign investment to overcome the imbalance. This lack of savings has also contributed to our high interest rates relative to those in some countries overseas. In turn, relatively high domestic interest rates encourage our banks, businesses and governments to borrow or source credit from overseas, thereby adding to our NFD. Indeed, Australia's NFD (both private and government sector borrowing overseas) has increased from 46 per cent of GDP in 2002–03 to a record high almost 60 per cent in 2021–22.
4b	2	Net foreign debt (NFD) is the difference in value between what Australia has borrowed from and owes overseas (our liabilities) minus what Australia has lent or invested abroad (our assets). It is sometimes used as an indicator of Australia's external position and includes borrowing through the issue of bonds, loans, advances and overdrafts. Net foreign equity (NFE) is the difference in value between foreign-owned Australian assets (such as property, shares and the retained earnings of overseas-owned companies operating here) and overseas assets owned by Australian residents. NFD relates to debt, which implies that there is an obligation to pay interest and, at some time in the future, to repay the original capital borrowed whereas NFE relates to credit (the ownership of assets such as shares and property) that does not necessarily have to be repaid.
4c	2	Official debt represents borrowing by the government, perhaps to finance budget deficits. Non-official debt represents borrowing overseas by Australian businesses to finance expansion. In 2021–22, official debt was higher than non-official debt.
4d	2	Your response should identify and explain two factors that have led to the rise in official foreign debt in recent times, including:

Question	Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		• Lack of domestic savings. We have a national savings–investment gap, where current savings by Australian households, businesses and governments are not sufficient to finance our high levels of investment. This has contributed to our interest rates being high relative to those abroad. In turn, high domestic interest rates encourage our governments (as well as banks and businesses) to borrow overseas, thereby adding to our NFD. • Many budget deficits. The general slowdown in Australia’s economic activity since the GGC led to 13 expansionary government budget deficits (where the value of the government’s budget outlays is greater than the value of budget receipts) between 2008–09 and 2022–23. These were designed to provide some ongoing stimulus to spending. In part, these deficits were financed by borrowing abroad, usually by selling government bonds, adding to our NFD and CAD.
4e	2	Your response should identify and explain two factors that have led to the rise in non-official foreign debt in recent times. These could include: • Opportunities for foreign investors. Because of Australia’s vast natural resources, there are many opportunities for foreign investors to make high returns. Although this inflow of investment capital helps grow our economy’s productive capacity, it also adds to our external liabilities. • Sound economic, political and social climate. Australia offers foreign investors a relatively stable economic and political environment, with sound infrastructure, efficient institutions (including the legal and financial systems), and an educated and skilled labour force. In addition, Australia is regarded as a good place to live and hence there has been massive foreign investment in residential property. In addition, countries such as China are using rural investment here to enhance their food and resource security at home. This adds to our external liabilities. • A lower value for the Australian dollar. A lower Australian dollar makes the purchase of our assets (businesses, shares, property) by non-residents relatively cheaper and hence more attractive. This adds to Australia’s external liabilities. • Financial sector deregulation and globalisation. In recent decades, there has been considerable financial sector deregulation. Combined with trade liberalisation, deregulation has increased overseas capital inflow and foreign ownership of assets such as businesses, shares and property, despite supervision of large projects by the Foreign Investment Review Board (FIRB).

3.5 ACTIVITIES

Question	Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	1	The terms of trade (TOT) measures the ratio for the average price the world is prepared to pay Australia for our exports against the average price we pay the world for our imports. Put another way, it is the amount of imported goods that can be purchased with a unit of exported goods. The TOT is measured by means of an index that uses a base year (where the index equals 100 points) to compare following years: The terms of trade index (TOT) = $\frac{\text{Export price index}}{\text{Import price index}} \times 100$ The export price index is constructed by measuring changes in the average prices of a basket of Australian exported goods, with items weighted according to their relative importance in trade. Similarly, the import price index measures changes in the average prices of our imported goods, with items weighted according to their relative importance.
2	1	The TOT is regarded as less favourable for Australia when we are receiving relatively lower prices against those we pay for imports, that is, when export prices rise more slowly, or fall more quickly, than import prices. As a result, the nation can purchase fewer imports with a given unit of its exports.

3	4	Your response could identify and explain how any of the following demand factors may reduce global demand for our exports, and in doing so, possibly reduce Australia's TOT: • weaker economic growth in our major trading partners such as China, Japan or the United States • depressed consumer and business confidence abroad reducing the demand for exports of our goods • reduced growth rates in global disposable income or population. For example, weaker economic growth in our major trading partners such as China, Japan or the United States may lead to an overall decrease in the global demand for Australian exports of commodities (e.g. wheat, beef, wool, coal and iron ore) and manufactured items (relative to their global supply) at a given price. Therefore, the prices we receive for exports are lower, perhaps depressing the TOT. Your response could identify and explain how any of the following demand factors may increase global demand for our exports, and in doing so, possibly increase Australia's TOT: • stronger economic activity among our major trading partners • greater consumer and business optimism overseas • faster growth rates in global disposable income or population. For example, greater consumer and business optimism overseas may lead to an increase in the global demand for our exports at a given price (relative to their global supply). This tends to cause a rise in export prices, perhaps increasing our terms of trade. Your response could identify and explain how any of the following supply factors may increase global supply of the things we export, and in doing so, possibly make our TOT less favourable: • new discoveries of minerals or the opening of new mines • the effect of new technology on productivity and hence production • domestic and international growing conditions for crops.
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Question	Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		For example, new discoveries of minerals or the opening of new mines may lead to an increase in the global supply of the commodities Australia exports (e.g. wheat, beef, wool, coal and iron ore) and manufactured items (relative to their global demand) at a given price, which may cause the general prices we receive for exports to become lower. This tends to make our TOT less favourable. Your response could identify and explain how any of the following supply factors may decrease global supply of the things we export, and in doing so, possibly make our TOT more favourable: • resource depletion and exhaustion • declining productivity • severe climatic conditions here and overseas. • For example, declining productivity may lead to a decrease in the global supply of the commodities and goods that Australia exports at a given price, possibly resulting in the prices received rising, and with them, possibly our terms of trade.
4a	2	When the terms of trade fall (due to changes in our export prices relative to import prices), this will affect the values of both exports and imports and hence the size of Australia's CAD. A fall in the TOT tends to cause the CAD to rise. This is because when we receive lower prices, for example, it often means that there is a relatively weaker demand internationally for our exports. In turn, the value of credits for our exports usually decreases, while dearer global prices paid by us for imports tend to increase the value of import debits.

Question	Marks	Answer/Exemplary response with <i>marking guide instruction</i>
4b	2	Changes in the TOT have a powerful effect on the exchange rate for the Australian dollar. Our dollar's exchange rate or value is what it is worth when swapped for other currencies to help facilitate international transactions between countries. The exchange rate is determined in the foreign exchange market by buyers (D) and sellers (S) of the currency. A fall in D relative to S will weaken the exchange rate. A fall in our TOT tends to weaken Australia's exchange rate. This is because lower export prices often indicate that there is relatively less international demand for our exports. This tends to reduce the value of exports relative to imports, in turn causing a decrease in the demand for the Australian dollar relative to its supply in the foreign exchange market. This weakens the exchange rate.
5a	2	The TOT is measured by means of an index that uses a base year (where the index equals 100 points) to compare following years: The terms of trade index (TOT) = $\frac{\text{Export price index}}{\text{Import price index}} \times 100$ The export price index is constructed by measuring changes in the average prices of a basket of Australian exported goods, with items weighted according to their relative importance in trade. Similarly, the import price index measures changes in the average prices of our imported goods, with items weighted according to their relative importance.

Question	Marks	Answer/Exemplary response with <i>marking guide instruction</i>				
5b(i)	5	Year	Export price index	Import price index	Calculation	TOT index
		2018–19	100	100	$100 / 100 \times 100$	100
		2019–20	130	120	$130 / 120 \times 100$	108
		2020–21	110	110	$110 / 110 \times 100$	100
		2021–22	90	100	$90 / 100 \times 100$	90
		2022–23	80	90	$80 / 90 \times 100$	89
5b(ii)	1	The country's TOT index rose over the period between 2018–19 and 2019–20, starting at 100 index points and rising to 108; however, there was a deterioration in the subsequent years to 2022–23 as export prices fell relative to import prices, leading the TOT index to fall to 89 index points.				
5c	2	Various factors may increase or reduce global demand for our exports, and in doing so, possibly increase or reduce Australia's TOT. Factors include economic growth in our major trading partners, consumer and business confidence abroad and growth rates in global disposable income or population. Various factors may increase or decrease global supply of the things we export, and in doing so, possibly make our TOT more or less favourable. Factors include the availability of resources, productivity and climatic conditions.				

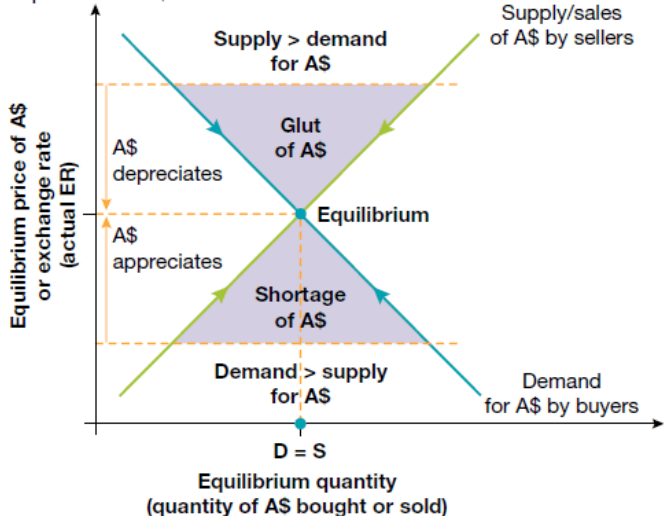
Question	Marks	Answer/Exemplary response with <i>marking guide instruction</i>
5d	2	Australia's TOT index fell between 2019–20 due to falling global demand for our exports and increasing global supply of the things we export. Following this, there was an overall increase in the global demand for Australian exports of commodities (e.g. wheat, beef, wool, coal and iron ore) and manufactured items (relative to their global supply) as a result of several factors: • stronger economic growth in our major trading partners, such as China, Japan or the United States • strong demand for commodities and a resultant significant increase in the price of commodities. The diagram shows that when there is an overall increase in the global demand for Australian exports relative to their global supply at a given price (D_1 to D_0), the prices we receive for exports are higher (Pe_1 to Pe_0), perhaps depressing the TOT. A demand–supply diagram representing the international market for Australia's exports given a general decrease or increase in their demand (relative to supply) Quantity of a good (Q)

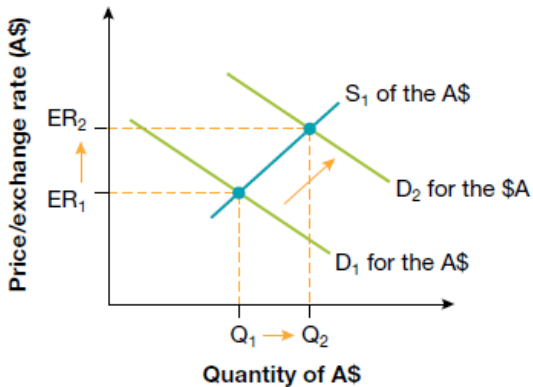
Question	Marks	Answer/Exemplary response with <i>marking guide instruction</i>
5e	8	i. Australia's TOT is an aggregate demand-side factor that can affect the level of spending and economic activity. A rise in Australia's TOT tends to increase the value of our export sales relative to import spending, and hence in itself tends to raise AD and the level of economic activity. This will help to accelerate the cyclical rate of economic growth as firms try to lift production in response to rising orders and falling levels of unsold stocks, making our achievement of the goal of strong and sustainable economic growth more likely to be achieved. The rate of cyclical unemployment will tend to fall because as firms try to lift their production, they increase their demand for resources including labour, helping to ensure we achieve the goal of full employment. However, demand inflation may start to rise especially if there is no unused productive capacity, because with falling stocks of goods, widespread shortages can develop causing higher prices, potentially inhibiting our ability to achieve the goal of low inflation. [4 marks] ii. A rise in the TOT usually improves our living standards. This is because if we receive better prices for our exports relative to those paid for imports, the value of our export sales rise relative to the value of imports, accelerating AD. As mentioned, this tends to lift economic growth and cause a drop in cyclical unemployment. This usually means higher average incomes, and hence improved purchasing power, consumption and access to good and services, which represents an increase in material living standards. In addition, because of lower unemployment, this strengthens our non-material living standards by tending to improve happiness along with physical and mental health outcomes, and reduce stress levels and feelings of social isolation. [4 marks]

3.6 ACTIVITIES

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	3	The exchange rate measures the price or value of the Australian dollar when it is swapped for other currencies in the foreign exchange market. Exchanging currencies is necessary because a nation's residents normally want to be paid in the currency unit appropriate for their country. Australia has a floating exchange rate — the price of the A\$ is determined by the forces of demand for the A\$ (as affected by international commodity prices and the terms of trade, overseas economic activity, our inflation rate) and the supply of the A\$ (as affected by our levels of imports, local confidence and economic activity, interest repayments on foreign debt) in the foreign exchange market at equilibrium.
2	2	The exchange rate for the Australian dollar will appreciate (rise) in the foreign exchange market when there is less selling (a decrease in supply) or more buying (an increase in demand) of our currency. This may follow stronger than expected trade figures, improvements in the terms of trade, strong overseas economic activity, rises in domestic interest rates relative to overseas rates, speculation of a rising dollar, and improved price competitiveness of our economy against prices in economies overseas. However, the exchange rate will depreciate (fall) when there is more selling and less buying of our dollar. This may reflect rapid domestic economic growth, strong consumer and business confidence locally, cuts in local interest rates, global recession, depressed commodity prices, and the release of worse than expected trade figures.
3	4	Changes in the price of the A\$ in the foreign exchange market have effects on our key domestic macroeconomic goals (low inflation, strong and sustainable economic growth, and full employment), and hence living standards. In addition, the exchange rate can cause the size of the CAD to rise or fall. • Rises and falls in the exchange rate for the A\$ can affect the rate of demand inflation, as well as the rate of cost inflation. • Rises and falls in the exchange rate for the A\$ can influence economic growth by affecting the level of aggregate demand and/or aggregate supply conditions.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		• Changes in the exchange rate can affect rates of both cyclical and structural unemployment because the A\$ can act as an aggregate demand or an aggregate supply factor. • In some ways, a lower exchange rate can help to improve macroeconomic conditions and hence living standards' incomes and consumption. This erodes material living standards. • In reverse, a higher exchange rate can sometimes benefit living standards. For example, a rising exchange rate means that the A\$ will buy a bigger quantity of imports than previously, making us better off. • A rise or fall in the exchange rate for the A\$ can affect the size of our current account balance in two main ways: through affecting the value of exports and imports, and through the value of primary income credits and debits.
4a	2	The exchange rate measures the price or value of the Australian dollar when it is swapped for other currencies in the foreign exchange market. Australia has a floating exchange rate — the price of the A\$ is determined by the forces of demand for the A\$ (as affected by international commodity prices and the terms of trade, overseas economic activity, our inflation rate) and the supply of the A\$ (as affected by our levels of imports, local confidence and economic activity, interest repayments on foreign debt) in the foreign exchange market at equilibrium. This can be seen in the following diagram.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		The exchange rate (ER) or price of the A\$  The exchange rate for the Australian dollar will appreciate (rise) in the foreign exchange market when there is less selling (a decrease in supply) or more buying (an increase in demand) of our currency. This may follow stronger than expected trade figures, improvements in the terms of trade, strong overseas economic activity, rises in domestic interest rates relative to overseas rates, speculation of a rising dollar, and improved price competitiveness of our economy against prices in economies overseas. However, the exchange rate will depreciate (fall) when there is more selling and less buying of our dollar. This may reflect rapid domestic economic growth, strong consumer and business confidence locally, cuts in local interest rates, global recession, depressed commodity prices and the release of worse than expected trade figures.
4b(i)	1	You need to prepare a D–S diagram showing the before and after situations in the foreign exchange market and explain what would happen to the exchange rate for the Australian dollar (A\$).

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		The diagram below shows what happens in the foreign exchange market when there is increased buying of the A\$. If the demand for our currency rises relative to its supply (the shift from D_1 to D_2), the price of the dollar or exchange rate will appreciate (ER_1 to ER_2). 
4b(ii)	1	You need to prepare a D–S diagram showing the before and after situations in the foreign exchange market and explain what would happen to the exchange rate for the Australian dollar (A\$). This diagram below shows what happens in the foreign exchange market when there is increased selling of the A\$. If sales of the A\$ rise (S_1 to S_2) and exceed the demand for the currency at the original price or exchange rate (ER_1), there will be a depreciation of the exchange rate (to ER_2).

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
4c	2	The trade weighted index (TWI) represents the average exchange rate for a basket of foreign currencies weighted according to their relative importance for Australia's trade (for example, the US dollar is weighted more heavily than the Indonesian rupiah). Because the TWI is an index, a base year (May 1970) is used to compare changes in the currency's value in subsequent years.
4d	12	i. Overall slower economic activity overseas including China and Japan — as happened in 2022, this would cause a decrease in the demand for Australian exports, which would result in a decrease in the demand for Australian dollars in the foreign exchange market. This would cause a downward movement or depreciation of the Australian dollar. [2 marks] ii. Relatively weak business and consumer optimism in Australia — fairly flat business and especially weak consumer confidence in Australia (e.g. 2020) are weaker aggregate demand-side factors that would cause both private

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		consumption expenditure and business investment expenditure to decrease, causing aggregate demand in the economy to decrease. If this decrease in spending causes a decrease in the demand for imports of consumer and capital goods, then sales of the A\$ may fall relative to the demand for the A\$. This would cause an upward movement or appreciation of the Australian dollar. [2 marks] iii. Speculation of a future rise in the Australian dollar next week — this would lead to speculative investors purchasing the Australian dollar with a view to selling it the following week to make a profit. The increase in the demand for the Australian dollar would cause an upward movement or appreciation of the currency. [2 marks] iv. A rise in our terms of trade index — the terms of trade measures the change in the export price index, relative to the change in the import price index. A rise in our terms of trade (e.g. between 2016–19) would mean that the export price index is rising relative to the import price index, which means that the demand for Australian dollars would be rising and the supply of Australian dollars in the foreign exchange market may be decreasing, causing an upward movement or appreciation of the Australian currency. [2 marks] v. A rise in interest rates in the US relative to those in Australia, as occurred in the second half of 2022, would see Australia becoming less attractive to foreign investors seeking high returns. Investors looking for higher returns on their short-term investments may invest in the US finance market to take advantage of the higher return. This would cause a fall in the demand for Australian dollars and a depreciation of the currency. Australians may invest overseas because of the higher interest rates, which causes an increase in capital outflows. This reduces the demand for Australian dollars, which also causes a downward movement in the A\$. [2 marks] vi. A fall in RULCs in Australia — real unit labour costs (RULCs) are the average wages paid per worker, including ‘on costs’ relative to the average value of output produced per worker measured over a period of time. ‘On costs’ are the additional costs to a firm incurred in employing labour, i.e. superannuation, workers' compensation and long-service leave. If real unit labour costs are falling, then costs per unit of output are falling and cost inflation will most likely be lower. This makes Australian exports more internationally competitive and so the demand for Australian

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		exports will increase, causing the demand for Australian dollars to increase, creating an upward movement or appreciation of the currency. [2 marks]
4e	10	i. Size of the CAD — a depreciation of the Australian currency means that it is cheaper for other countries to buy Australian exports and it is more expensive for Australian consumers and businesses to purchase imported goods and services. Depending on the price elasticity of demand for imports and exports, the depreciation would cause an increase in the demand for exports and a decrease in the demand for imports, causing the current account deficit to decrease. However, a depreciation of the Australian dollar would also make it more expensive to service our foreign debt, which would cause the CAD to increase because interest payments are a part of the current account. [2 marks] ii. Rate of inflation — inflation occurs in the economy when there is a sustained increase in the general level of prices in the economy. A depreciation of the exchange rate can cause a rise in both demand and cost inflation. First, the depreciation causes exports to become cheaper and imports to become more expensive. This tends to boost AD and economic activity, possibly leading to general shortages of goods and services in the economy if there is little unused productive capacity available. As a result, the general level of prices may rise. Secondly, inflation can occur when the costs of production rise, causing businesses to increase their prices to cover costs and protect profit margins. As imports cost more due to the depreciation, the cost of importing both consumer and capital goods increases, leading to a rise in consumer prices and rising costs of production, which add to cost inflation pressures. [2 marks] iii. Rate of economic growth — a depreciation of the exchange rate makes exports cheaper and imports more expensive. If the demand for exports increases and the demand for imports decreases then the value of net exports ($X - M$) will increase, causing aggregate demand to increase. An increase in aggregate demand would cause a cyclical increase in the level of economic activity because increased spending causes an increase in the production of goods and services and employment in the economy. A depreciation would promote economic growth. [2 marks] iv. Rate of unemployment — a depreciation of the exchange rate makes exports cheaper and imports more expensive. If the demand for exports increases and the demand for imports decreases then the value of net exports ($X - M$) will increase, causing aggregate demand to increase. An increase in aggregate demand would cause a cyclical

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		increase in the level of economic activity because increased spending causes an increase in the production of goods and services and employment in the economy. A depreciation would promote economic growth and reduce cyclical unemployment. [2 marks] v. Material living standards — a lower exchange rate can sometimes help to improve macroeconomic conditions and hence living standards. For instance, when there is unused productive capacity (e.g. 2018–19), a lower exchange can help boost the value of overseas spending on our exports (more injections) relative to our spending on imports (lower leakages). Under these conditions, a rise in net exports lifts AD, causes firms to lift production thereby generating higher employment, incomes and purchasing power. This can increase material living standards (providing that incomes grow fast enough to offset higher inflation that is caused by the weaker dollar) as people have more access to goods and services. A lower dollar can also help improve non-material living standards since with lower unemployment, overall, more people enjoy a better quality of life. However, a lower exchange rate in an economy operating near its capacity, can cause a rise in both demand and cost inflation, reducing the real purchasing power of incomes and consumption. This erodes material living standards. [2 marks]

3.7 ACTIVITIES

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	2	International competitiveness means that Australian businesses are relatively efficient in their use of resources, and can compete or sell their goods and services both here and in markets around the world without relying on government protection. They can sell goods and services of comparable quality at a lower price than overseas rivals.
2	2	These factors might affect Australia's international competitiveness in the following ways: • Production costs for businesses might include wages and labour on-costs (like compulsory superannuation, leave entitlements and workers compensation), the costs of utilities (such as power, gas and water, as well as the costs of communications and transport), the costs of firms borrowing credit or finance (the rate of interest on business overdrafts), or the costs of purchasing raw materials and equipment. If these costs overall are higher relative to those overseas, it is likely that local firms will not be competitive. Businesses will have to sell their products at a higher and therefore less attractive price in local and foreign markets, leading to lower exports, higher imports and a bigger CAD. • Productivity relates to efficiency or the level of output gained from a given quantity of inputs or resources. Multifactor productivity measures the efficiency with which the combined inputs of labour, capital and natural resources are converted into production. Weaker multifactor productivity will translate into higher production costs, and will therefore act as a less favourable aggregate supply-side factor. It makes locally produced goods less attractive than imports. This weakens our international competitiveness. Australia is relatively rich in natural resources (coal, bauxite, iron ore, alumina) that are wanted by many nations, and we also have a relatively large area of productive land for grazing and agriculture. This means that mineral and rural commodities can often be produced at lower and more competitive prices, making us more internationally competitive. • Australia's inflation rate, compared to rates abroad, affects the international attractiveness of locally made goods and services. A relatively lower inflation rate here makes our goods and services more attractive to buyers at home and abroad, making us more internationally competitive.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		- The exchange rate for the A\$ affects the price of exports and imports of goods and services. A generally lower exchange rate allows Australian-made goods and services to be sold relatively cheaply. This usually helps to make local industry more competitive at home and abroad, improving Australia's international competitiveness. - Company tax rates affect the after-tax profits of firms and hence the price they must charge to make reasonable returns. With few exceptions, Australia's corporate tax rates of 30 per cent for large firms and 25 per cent for small to medium-sized firms (in 2023) are generally higher than our competitors in Asia (China, Vietnam, India and Indonesia) and in Europe (Italy, Germany and Ireland). It also means that local firms cannot afford to purchase more efficient technology and equipment needed to improve their productivity. In these ways, higher corporate tax rates help to explain why local businesses need to charge higher prices than some businesses overseas, making them less internationally competitive, thus reducing Australia's international competitiveness.
3	4	Australia's poor level of international competitiveness might have a detrimental impact on Australia's living standards. Being unable to compete in global markets will result in Australia being unable to improve its level of exports and become more dependent on imports. Rising X and falling M sees AD fall, leading to lower levels of economic activity. Lower activity means fewer jobs are created or required, leading to higher levels of unemployment which will reduce many households' ability to purchase goods and services and therefore reduce their material living standards. In terms of non-material living standards, Australia's environmental outcomes may benefit from our relatively poor competitiveness. This is because a slower pace of economic growth should tend to reduce carbon emissions, pollution, resource depletion and negative externalities paid by third parties that impact on 'quality' of life. However, our current lack of competitiveness has caused some firms to close or relocate abroad, causing the loss of jobs and higher structural unemployment. As well as reducing material living standards, this also harms non-material living standards as people are more likely to experience low self-esteem and financial stress when unemployed.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
4a	2	Your response should identify and outline two important factors that have affected Australia's international competitiveness over recent years. You could include: Production costs of businesses, including wages — the price and competitiveness of local firms is affected by how our costs of production compare with those abroad. Production costs for businesses might include wages and labour on-costs (such as compulsory superannuation, leave entitlements and workers compensation), the costs of utilities (such as power, gas and water, as well as the costs of communications and transport), the costs of firms borrowing credit or finance (the rate of interest on business overdrafts), or the costs of purchasing raw materials and equipment. If these costs overall are higher relative to those overseas, it is likely that local firms will be uncompetitive. Businesses will have to sell their products at a higher and therefore less attractive price in local and foreign markets, leading to lower exports, higher imports and a bigger CAD. Productivity — productivity relates to efficiency or the level of output gained from a given quantity of inputs or resources. The level of GDP per hour worked commonly measures labour productivity. Multifactor productivity measures the efficiency with which the combined inputs of labour, capital and natural resources are converted into production. Low productivity translates into higher production costs, and hence acts as a less favourable aggregate supply-side factor. It makes locally produced goods less attractive to imports. This weakens our international competitiveness. Despite some good rises in labour productivity over the period, multifactor productivity overall has been decreasing since 2001–02. Multifactor productivity has recently been negative, especially in the mining and utilities sectors. While a few of these industries (especially services) do not directly compete with imports, most do; hence lower productivity is a worry. There are a number of explanations for these changes in efficiency that undermine our international competitiveness.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		Productivity often moves in cycles and is difficult to measure, as it is hard to determine the exact origin of the change. Industries in which there have been rapid changes in technology record faster improvements. In the case of agriculture, severe weather events of late would not help, along with the use of more marginal land. In mining, there has been heavy investment of capital resources, but the full production returns have not yet been realised. In addition, the remaining natural resources are becoming more costly to extract since the easier ones have already been exploited. The rise in labour productivity may have been helped by the general increase in unpaid overtime. Availability of natural resources — Australia is relatively rich in natural resources (coal, bauxite, iron ore, alumina) that are wanted by many nations, and we also have a relatively large area of productive land for grazing and agriculture. This means that mineral and rural commodities can often be produced at lower and more competitive prices, making us more internationally competitive. The exchange rate — the exchange rate for the A\$ affects the price of exports and imports of goods and services. A generally lower exchange rate allows Australian-made goods and services to be sold relatively cheaply. This usually helps to make local industry more competitive at home and abroad, improving Australia's international competitiveness. In reverse, a higher A\$ (as occurred between 2010 and 2013) makes our exports relatively dearer against imports, undermining our international competitiveness. Relative rates of inflation — Australia's inflation rate compared to rates abroad affects the international attractiveness of locally made goods and services. A relatively lower inflation rate here makes our goods and services more attractive to buyers at home and abroad, making us more internationally competitive. In reverse, a relatively higher inflation rate here erodes our international competitiveness and sales. Innovation — R&D and innovation (the development of new products and different ways of making things, and adapting to the changing wants of consumers) can help give a nation a competitive edge and allow it to sell more strongly in both local and international markets. In contrast to some countries, Australian businesses spend less than 1.2 per cent of GDP on R&D (down from around 1.4 per cent over the last five years). Government spending on

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		education is also needed to grow our creativity and innovation, but this is also down. Other countries are overtaking us, and this too helps to explain the fall in our international competitiveness. Rates of company tax — company tax rates affect the after-tax profits of firms and hence the price they must charge to make reasonable returns. With few exceptions, Australia's corporate tax rates of 30 per cent for large firms and 25 per cent for small to medium-sized firms (in 2022–23) are generally higher than our competitors in Asia (China, Vietnam, India and Indonesia) and in Europe (Italy, Germany and Ireland). It also means that local firms cannot afford to purchase more efficient technology and equipment needed to improve their productivity. In these ways, higher corporate tax rates help to explain why local businesses need to charge higher prices than some businesses overseas, making them less internationally competitive, thus reducing Australia's international competitiveness. Government subsidies — the Australian government pays cash subsidies to local producers to help encourage structural change and cover some production costs. This allows businesses to sell their product at a lower price in both local and international markets. Sometimes the decision to pay subsidies is designed to correct market failure, but at other times it could be to help support infant industries and win greater political popularity. Whatever the case, subsidies can make local firms more internationally competitive.
4b	2	i. According to the graph, the four main areas of competitiveness that are seen as the greatest problem for Australia are: strong R&D culture cost competitiveness competitive tax regime dynamism of the economy. [1 mark] ii. According to the graph, the four areas of competitiveness that are seen as the least concern for Australia are: • effective legal environment • high educational level

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		- skilled workforce - reliable infrastructure. [1 mark]
4c	8	i. Productivity relates to efficiency or the level of output gained from a given quantity of inputs or resources used in production. Labour productivity is commonly measured by the level of GDP per hour worked, while multifactor productivity measures the efficiency with which the combined inputs of labour, capital and natural resources are converted into production. [2 marks] ii. According to the figure, the Australian industries that have been the least successful in raising both labour and multifactor productivity are: Transport, Postal and Warehousing Arts and Recreational Services Electricity, Gas, Water and Waste Services Administrative and support services. [2 marks] iii. Weak productivity growth may see the cost of production within these industries rise as they are unable to improve their production methods and require more resources to maintain levels of production. They may lead to cost-push inflation and raise the rate of inflation. Weak productivity growth may see these industries become uncompetitive and lose export markets or be replaced by less expensive imports. In either situation, less demand for products will see fewer people employed in these industries: people losing their jobs will increase the rate of unemployment. [4 marks]
4d	4	If Australia was to improve its international competitiveness, this would be likely to improve living standards in Australia. Improved competitiveness would have the combined effect of increasing our exports, while potentially reducing imports. This increase in X and reduction in M would increase AD, leading to higher economic activity, more derived demand for more incomes. With more employment, households would be earning more income, and this would increase the average 'quantity' of goods and services consumed per person and hence improve material living standards. As the measures to improve competitiveness will be very likely to lower cost of production, goods and

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		services produced for the Australian market are also likely to be sold at a lower price, which would further improve households' purchasing power and access to goods and services.

UNIT 4: MANAGING THE ECONOMY

AOS 1- Aggregate demand policies and domestic economic stability

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4.2 ACTIVITIES

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	2	Budgetary policy relates to the projected changes in the level and composition of federal government revenues and expenses in the year ahead.
2	2	The medium-term operational aim of recent budgetary policy has been to gradually return to a budget surplus at a prudent rate.
3	2	Budgetary policy relates to the projected changes in the level and composition of federal government revenues and expenses in the year ahead. It is regarded as an aggregate demand-side policy because changes in government revenue and expenditure can have a powerful impact on aggregate expenditure in the economy, as well as national production and the levels of employment and inflation.
4	2	A budget surplus is a situation where anticipated government revenue is greater than anticipated expenditure. Over the medium to longer term, it is important that the budget return to surplus for a number of reasons. Firstly, a surplus can be used repay existing debt, which also reduces the interest repayments on debt and frees up money to be devoted to other areas. Secondly, a surplus give the government the opportunity to go back into deficit or operate an expansionary outcome when required by the economy. A third reason is that a surplus can be used and invested for the long term benefit of the Australian economy, for instance by adding more funds into the Future Fund or the Infrastructure Fund.

4.3 ACTIVITIES

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	1	Budget receipts (revenues) come from direct taxes such as those on personal income and company profits, and from indirect taxes such as excise or tariffs, along with non-tax revenue.
2	1	The three main sources of federal budget revenue are: • Direct taxes, such as taxes on individual incomes or business revenue • Indirect taxes, such as the GST levied on the sale of goods and services • Non-tax revenue, such as profits gained from government business enterprises (e.g. Australia Post).
3a	2	Direct taxes are levied according to the levels of income received by the individual or business, and as such they are paid directly to government. Indirect taxes are collected from individuals or businesses by other businesses, and are then passed on to government. For example, GST is collected from consumers by retail businesses, which are then required to complete a periodical Business Activity Statement, and to pass the collected GST to the ATO.
3b	2	Person income tax is a direct tax paid by individuals who earn income in the form of wages, salaries, rent, interest and dividends. For most people, income tax is deducted by firms from the pay packets of employees before they are paid (pay-as-you-go or PAYG). Company tax is a flat or proportional tax levied directly on business profits. In recent years this tax has been progressively reduced so that for 2019–20, the rate was 27.5 per cent for small to medium-sized businesses with an annual turnover up to \$50 million.
3c	2	Progressive taxes are those that narrow the gap between individuals on higher as opposed to lower incomes. An example is personal tax income system.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		Currently (at least until the changes scheduled for July 2024), those on taxable incomes below \$18 200 pay a zero rate of tax, leaving them with relatively more disposable income. However, as taxable income rises, taxpayers move into higher tax brackets. A regressive tax increases income equality. Indirect taxes, like the GST or the excise tax on petrol, increase income inequality. This is because the tax on a good or service (measured in dollar terms) represents a greater proportion of a lower-income earner's income, than that for a high-income earner. It means that the tax burden is unfairly shifted onto those who can least afford it, widening the gap in purchasing power.
4a	2	A reduction in the marginal rate of personal income tax increase the disposable income of consumers and therefore hopefully stimulate consumption (C) and thereby AD.
4b	2	An increase in the rate of capital gains tax will discourage businesses and individuals from investing since any gains will be taxed at a higher rate. This is likely to reduce the level of investment (I) and therefore AD.

4.4 ACTIVITIES

Question	Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	2	Budget expenses arise from various types of government outlays on public goods such as defence, health and education, involving both government consumption spending (G_1) and government investment spending (G_2), as well as transfer payments including welfare and subsidies.
2	2	Budget expenses are classified as either as government consumption spending (G_1) or government investment spending (G_2).
3	3	The three most important areas of federal government budget outlays are: • Social security or welfare expenditure — amounting to 36 per cent of spending • Health expenditure — amounting to 16 per cent of spending • Education expenditure — amounting to 7 per cent of spending.
4a	2	Government consumption or current spending (G_1) includes the expenditure required to maintain day-to-day government operations. Government capital spending (G_2) is spending on physical infrastructure and capital equipment, necessary to improve the productive capacity of the economy. Current spending includes the wages and salaries of government employees, and the purchase of consumable goods and services that might be required by government on a recurring basis. Government capital expenditure includes the building of assets such as roads, railways, schools, hospitals, water pipelines and the national broadband network, as well as equipment such as beds and medical technology for hospitals or furniture and computers for schools and universities.
4b	2	Government spending arises from various types of government outlays on public goods such as defence, health and education. Government transfer payments include payments made to individuals under the welfare or social security systems, as well as grants to organisations such as arts organisations, and assistance to particular industries, such as the assistance paid to the automotive industry until recently. They are not regarded as

		government spending because it is the recipient of the payment, such an aged pensioner or unemployed person, who actually spends the money.
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4.5 ACTIVITIES

Question	Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	2	The budget outcome is the actual difference between government revenue and expenditure.
2	3	The three main types of budget outcome are: • a balanced budget, where government revenue and expenditure are equal • a budget deficit, where the value of government expenditure exceeds anticipated revenue • a budget surplus, where the value of government revenue exceeds the anticipated expenditure.
3	2	A budget deficit is financed by a combination of the following: • borrowing from overseas, by selling government bonds to overseas investors • borrowing from the RBA, either by drawing down on savings accumulated with the RBA during periods of surplus, or selling government bonds to the RBA • borrowing from the Australian public or financial institutions, through the sale of government bonds.
4	2	A budget surplus can be used to retire accumulated government debt, increase savings with the RBA, or establish special sovereign wealth funds for future investment.
5a	4	i. A budget deficit occurs when government outlays exceed government revenue, while a budget surplus occurs when revenue exceeds outlays. ii. The headline budget outcome is the difference between cash outlays and cash revenues from all sources. This may include one-off events such as asset sales. The underlying budget outcome takes the headline figure, but excludes the value of one-off events such as asset sales. The underlying outcome is a more accurate reflection of the government's budgetary position.

Question	Marks	Answer/Exemplary response with <i>marking guide instruction</i>
5b	3	A budget deficit can be financed by: • borrowing from overseas, by selling government bonds to overseas investors • borrowing from the RBA, either by drawing down on savings accumulated with the RBA during periods of surplus, or selling government bonds to the RBA • borrowing from the Australian public or financial institutions, through the sale of government bonds.
5c	2	Running budget deficits can result in the following problems: • Deficits add to public sector debt, and this can get out of control as it did in Greece and Spain in the years following the GFC. This can lead to a downgrading of the government's credit rating, which can make repayments more expensive because of the imposition of higher interest rates. • Deficits have to be repaid with interest, diverting money away from more productive expenditure by government, such as education or the building of infrastructure. • Going into deficit can be a useful way of countering economic crisis, but this is difficult to do if the budget is already in deficit. • Ongoing deficits are ultimately unsustainable, and will need to be repaid through higher taxes or a reduction in government services.

Question	Marks	Answer/Exemplary response with <i>marking guide instruction</i>
5d	2	Advantages of returning to budget surplus include: • Running budget surpluses can be used to offset budget deficits without needing to increase public sector borrowing or sovereign debt. Surpluses are sustainable and do not create a burden for future generations. • A budget surplus allows the government to build up its 'war chest' or 'fighting fund', which allows it to better deal with a severe economic crisis or slowdown in the future. • A budget surplus helps to protect our international AAA credit rating. This rating allows credit to be borrowed more cheaply in the future, freeing financial and other resources for use elsewhere in areas such as infrastructure. • Surpluses help to support international confidence among investors, and strengthen Australia's external situation.
5e	2	The medium-term operational aim of recent budgetary policy has been to gradually return to a budget surplus at a prudent rate.
6	4	The first option is to reduce the government outlays (or expenses) and this can be achieved through cutting the investment in infrastructure. The second option is to increase government revenue (or receipts) and this can be achieved through increasing taxation revenue through either increasing the rate of taxation or increasing the number of individuals/companies who pay tax.

7	4	The events listed would be likely to affect budget receipts, budget outlays and budgetary outcome in each of the following ways: i. A rise in domestic consumer and business confidence — this would cause an increase in aggregate demand, production and employment. Incomes and business profits are likely to rise. Government taxation receipts from incomes, business profits and indirect taxes will increase and government outlays such as transfer payments (e.g. unemployment benefits) will decrease. The budget outcome is likely to be a surplus and have a contractionary stance. ii. The slower rate of economic growth in China — this would cause net exports to decrease, and consumer and business confidence to fall. Aggregate demand and the level of economic activity, business profits and consumer spending would fall. Tax receipts from company profits and incomes, exports and indirect taxes would fall. Outlays such as government transfer payments and possibly investment spending would increase. This would cause an increase in outlays and a decrease in receipts. The budget outcome would be a deficit and have an expansionary stance. iii. A rise in the unemployment rate from 5 per cent to 6.4 per cent — this would reflect a slowdown in aggregate demand and the level of economic activity. Tax receipts from incomes, business profits and indirect taxes would decrease. Outlays in the form of transfer payments such as unemployment benefits would increase. The budget outcome would be a deficit and have an expansionary stance. iv. An acceleration of wages growth — this would cause taxation receipts from income, business profits and indirect taxes to increase. Government outlays would decrease because the government would reduce spending through the automatic stabilisers and possibly discretionary stabilisers to reduce aggregate demand. The budget outcome would be a surplus and have a contractionary stance. v. An ageing population with a declining proportion of people of working age — this will cause government outlays to increase and receipts to decrease, causing the budget outcome to be a deficit. Increased outlays would result from providing social infrastructure such as aged care facilities, and transfer payments such as pensions. Receipts would decrease from PAYG income tax because of the declining proportion of people of working age. Government
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Question	Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		outlays would increase because of the increased provision of social infrastructure such as homes for the aged, and hospitals, and transfer payments such as pensions. vi. A serious flu or COVID-19 epidemic spreading — this will affect the tourist industry in Australia as well as causing significant illness in the labour force. This would affect government taxation receipts from PAYG tax, business profits and indirect taxes. There would be a significant increase in government outlays in both current and capital expenditures in the production of medicines and provision of health and support services. Government outlays would increase while government revenues would decrease, causing the budget outcome to be a deficit.

4.6 ACTIVITIES

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	2	A contractionary budget stance is one that seeks to slow economic growth by reducing the size of a budget deficit, or by increasing the size of a budget surplus. It would be used when there is a threat of inflationary pressures in the economy.
2	2	An expansionary budget stance is one that seeks to stimulate economic growth by either increasing the size of a deficit, or reducing the size of a surplus. It would be used when there is a slowdown in aggregate demand and economic activity.
3	2	It is possible to determine whether the budget stance is expansionary or contractionary by examining whether changes in the budget surplus or deficit are a result of deliberate government budgetary policy, or merely a result of automatic changes in the relationship of receipts to outlays, due to changes in the level of economic activity.
4a	2	An expansionary stance is one that seeks to stimulate economic growth by either increasing the size of a deficit, or reducing the size of a surplus. A contractionary budget stance is one that seeks to slow economic growth by reducing the size of a budget deficit, or by increasing the size of a budget surplus.
4b	2	i. In 2018-19, the budget deficit was \$690million, or 0% of GDP; however, the next year the deficit was \$134 171million, or -6.5% of GDP. The larger deficit is regarded as expansionary in its impact on the level of aggregate demand. ii. From this deficit of \$134 171 million in 2020-21, the deficit was forecast to fall to \$77 961 million (-3.4% of GDP) by 2022-23. A smaller deficit like this would be regarded as less expansionary in its impact on the level of aggregate demand.

4.7 ACTIVITIES

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	3	The automatic stabilisers include tax receipts of all kinds, as well as government outlays on welfare, particular welfare paid to the unemployed. These tend to increase or decrease in response to changes in the cyclical levels of economic activity, resulting in a countercyclical impact on the budgetary outcome. For example, in boom conditions government tax and other revenue increases, while outlays such as unemployment benefits decrease, pushing the budget towards a surplus position. This results in a withdrawal of economic stimulus, slowing both private consumption and business investment, returning economic activity to a more sustainable level.
2	3	Discretionary stabilisers are those measures carried out as part of deliberate policy action on the part of the government. They can include specific changes in the level and mix of taxation revenues, or changes in the nature and level of government outlays. For example, in times of economic boom, discretionary stabilisers can include increasing particular types of taxes, or reducing some types of welfare payments or other government expenditure with a view to dampening aggregate demand and slowing unsustainable economic growth.
3a	4	Automatic stabilisers (or cyclical or built in stabilisers) are a mechanism of the federal budget that operate in a countercyclical way to stabilise the level of aggregate demand or economic activity without the treasurer deliberately changing their level or composition. They are built into most budget tax receipts and some government expenses (for example, PAYG tax, company tax, GST and excise, as well as transfer payments such as welfare). During the downturn of 2020, unemployment rose, and the automatic stabilisers would have seen less revenue (especially through income tax receipts) collected by the government. As unemployment grew more people would have qualified to receive transfer payments (eg JobSeeker), requiring a higher level of government expenditure. With higher spending and lower revenue, the size of the budget deficit would grow, creating an expansionary stance. Further, by receiving transfer payments, household consumption would not have fallen by as much as it other would have done, which helps to prevent AD from falling and helps to maintain the level of domestic economic stability.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
3b	4	During a period of economic recovery, more jobs are created, unemployment falls, consumption increases and the increase in economic growth creates greater profit and income for individuals; see results in greater tax receipts for the government. This will also limit the growth in disposable income and help to prevent the economy moving into a boom and limiting the ability of the economy to grow in a sustainable manner. Lower unemployment will reduce the amount of transfer payments required, which combined with increased revenue will reduce the size of the budget deficit or perhaps even push the budget into surplus. This would have a contractionary impact on the level of AD and help promote domestic economic stability.

4.8 ACTIVITIES

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	3	Since the end of the pandemic, the Australian economy had been recovering strongly and entered an expansionary phase. By the end of 2022, the GDP was growing by 3.9%, unemployment had fallen to 3.5% and inflation had reached 6.1%.
2	2	Recent budget outcomes have generally considered to be expansionary, although becoming less expansionary. The large deficits recorded in the past few years have been designed to stimulate the level of economic activity and in the recovery from the pandemic.
3	3	Important discretionary policy measures from the 2021-22 Federal Budget: • Further staged reductions in the marginal rates of income tax for some individuals were announced. These would be rolled out over 10 years where around 94 per cent of taxpayers would pay a marginal rate of 30 per cent or less by abolishing the 32.5 per cent and 37 per cent marginal tax rates by 2024–25 and lifting the upper thresholds of the 19 per cent and 30 per cent tax rates, making the personal income tax system less progressive. • Re-state the already scheduled reductions in the rate of company tax for small and medium-sized businesses (with an annual turnover up to \$50m) that currently pay 27.5 per cent tax on profits. The next reduction to 26 per cent will occur in 2020–21, ending with a further reduction to 25 per cent for 2021–22. • Government spending on national infrastructure: There is to be an increase in government capital spending on infrastructure (especially road and rail programs), this includes \$120B as a part of the Ten-Year infrastructure Plan. Projects to include a \$3b rise in the Urban Congestion Fund to ease road congestion and increase parking at railway stations, \$2b for a fast train service from Geelong to Melbourne, \$1.4b for upgrading unsealed country roads in Victoria, over \$2b for blackspot areas and to repair potholes, \$3.5b for the West Sydney North–South Rail Link, \$2.5b for important Queensland roads, and \$1.6b for extending the M1 Pacific Motorway.
4a	4	The ongoing budget deficits were a result of the pandemic and the need by the government to undertake significant spending initiatives in order to attempt to maintain living standards and prevent the collapse of the economy. After a

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		record budget deficit was recorded in 2019-2020, it will take many years before the budget will be able to absorb the past loss of revenue and increase in spending and return to surplus.
4b	6	Recent budgets have been designed to help promote 'jobs and growth' and by taking an expansionary stance through a series of significant budget deficits. Large spending initiatives, coupled with the automatic stabilisers increasing expenditure and reducing revenue, have combined to prevent consumption spending from falling by as much as it otherwise would have, given the economic climate. Further, government capital expenditure increased. With an increase in C and G2, AD grew (or at least did not fall by much as it otherwise might have), which improved the level of economic activity. This created the need for increased production, which promote economic growth. It also created a derived demand for labour, which promote an increase in the level of employment.
4c	4	The listed budgetary measures would be likely to affect the rates of demand inflation, economic growth and unemployment as follows: i. <i>A discretionary reduction in the rates of company and PAYG taxes</i> would increase the disposable income of business and the household sector. These are favourable demand-side factors because both private investment and private consumption spending will increase, causing a cyclical upturn in the economy as aggregate demand increases. This will cause cyclical unemployment to fall and, if the economy reaches its full productive capacity, demand inflation may occur because aggregate demand may be greater than aggregate supply, causing a shortage of goods and services in the economy. ii. <i>Increased defence spending on imported defence equipment and overseas peacekeeping</i> would not increase expenditure in the domestic economy because it is a leakage from the economy, so government spending would not be adding to domestic spending in the economy. This expenditure would not contribute to demand inflation, but if net exports decrease then cyclical unemployment may increase as the level of aggregate demand decreases. iii. <i>JobSeeker and JobKeeper programs</i> in 2020 ensured that those who were losing their jobs, or were working less hours, still received an amount of income from the government in order to maintain their standard of living. This prevents AD from falling as it otherwise may have done, which meant the rate of economic growth did not fall by

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		much as it otherwise may have done. As a level of demand was fell, demand pull inflation was non-existent, leading to lower levels of inflation, but not as low as may have been the case. Unemployment rose, but as a result of the government initiatives the increase was relatively minor and lower than anticipated. iv. An increase in the value of instant tax write-offs for the purchase of capital items by small and medium-sized businesses would encourage businesses to upgrade capital items in order to use newer and better capital. This will lead to an increase in the I (Business Investment) component of Aggregate Demand (AD) and therefore an increase in AD. A higher level of AD will require businesses to increase production to meet the higher demand, leading to an increase in the rate of economic growth. This will also lead to an increase in the derived demand for labour, lowering unemployment. However, if the increase in AS cannot be meet by an increase an adequate increase in the level of supply, then it may lead to demand pull inflation. v. <i>A huge increase in government investment spending on national infrastructure projects to \$120 billion over the next 10 years starting 2022–23.</i> will directly impact on the G_2 spending and therefore increase economic growth. These projects will create a large number of employment opportunities and help to put upward pressure on demand inflation in the short term. In the long term these projects will ease cost inflation.
4d	2	Returning a deficit budget to surplus could be as simple as the discretionary increasing of taxes, and/or reducing government expenditure, but this would depend on where the economy was located in the business cycle. If the economy is growing at a reasonably strong rate, and the deficit was structural, and a result of previous high spending or lower taxes, then the economy may be able to withstand the contractionary impact of this strategy. However, if the deficit is cyclical, resulting from weak aggregate demand and slow economic growth, higher taxes or lower government expenditure is likely to exacerbate the problem, as lower economic activity will result in the automatic stabilisers producing a higher deficit. In these circumstances, it may be better to allow the deficit to work as an automatic stabiliser, and take advantage of its expansionary characteristics.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
4e	2	A return to budget surplus in the medium-term would be desirable because it may help avoid the following problems: • Deficits add to public sector debt, and this can get out of control as it did in Greece and Spain in the years following the GFC. This can lead to a downgrading of the government's credit rating, which can in turn make repayments more expensive because of the imposition of higher interest rates. • Deficits have to be repaid with interest, diverting money away from more productive expenditure by government, such as education or the building of infrastructure. • Going into deficit can be a useful way of countering economic crisis, but this is difficult to do if the budget is already in deficit. • Ongoing deficits are ultimately unsustainable, and will need to be repaid through higher taxes or a reduction in government services.
4f	7	Responses to this question may depend on economic circumstances that are applicable at the time the question is being attempted. i. The three most important factors to be identified will vary from time to time into the future, but should take into consideration: rate of economic growth, levels of unemployment, levels of inflation and the current budgetary position. ii. Students should be able to explain the role of both automatic stabilisers and discretionary stabilisers when formulating their responses. It is important to recognise that an attempt to use discretionary policies that run counter to the impact of automatic stabilisers may not produce the desired result.

4.9 ACTIVITIES

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	2	The key strengths of using budgetary policy to help promote domestic economic stability include: • Automatic stabilisers can act fairly quickly in a countercyclical manner. A slowing economy will rapidly see government revenues fall and welfare payments rise, creating a budget deficit outcome that is more expansionary. Discretionary outlays, such as cash payments to welfare recipients, can also quickly boost aggregate demand and economic activity. • Automatic stabilisers used during a slowdown will disappear once recovery is under way and so will not leave an ongoing budget deficit. • Discretionary budgetary policies can be used to precisely target areas of economic weakness. • Budgetary policy works fairly directly on aggregate demand (for example, by giving stimulatory payments directly to consumers) with an immediate impact. • Some measures can also affect supply-side conditions. For example, a company tax cut to business can encourage investment, improving aggregate supply-side conditions.
2	2	The main weaknesses of using budgetary policy to help promote domestic economic stability include: • Discretionary stabilisers may become pro-cyclical due to time lags. For example, large scale infrastructure projects designed to stimulate aggregate demand may take so long that by the time it is at its peak activity, the economy may have recovered, and the projects could add to inflationary pressures. • Political factors can make it difficult to make changes to some areas of discretionary budget revenue or outlays. Tax rises and cuts to welfare will be unpopular and may not be easily implemented as a means of reducing aggregate demand in boom times. • The creation of a structural deficit can limit options. For example, in recent times, the budget has operated under a structural deficit, but economic activity has been sluggish. Increasing the deficit to stimulate aggregate demand may not be an option in these circumstances.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		- Budgetary policy may clash with monetary policy. For example, the sale of government bonds to stimulate the economy in times of downturn may put upward pressure on interest rates at a time when falling interest rates would be preferred as a means of boosting spending. - Conflicting government economic goals can create constraints on fiscal policy. For example, the need to reduce a structural deficit may lead to government expenditure cuts that weaken economic activity at a time when stimulus is required.
3	4	Governments face financial constraints where there is limited money available for spending without increasing unpopular taxes or adding to already high levels of government debt. For instance, during a recession, the government may want to make big discretionary cuts in tax rates, increase outlays and run expansionary budget deficits to help stimulate AD and economic activity. However, the benefits of such action would have to be balanced against the repayment burden that this action would place on future generations and potentially, the negative impacts on Australia's AAA credit rating. In other words, concern over the impact of huge deficits on the government's long-term financial position, is likely to mean that the strength of stimulus budget measures may be less than that actually needed for promoting a significant recovery. This weakens the policy's effectiveness. Psychological constraints can also reduce the budget's effectiveness as a stabiliser during a recession. The success and strength of any budget depends partly on the prevailing level of confidence. For instance, reduced consumer and business confidence (e.g. during 2020) would tend to weaken the expansionary effects of budget deficits or tax cuts where people may try to save money rather than spend it. In reverse, if confidence is strong, contractionary budgets can be made less effective than expected in slowing the level of AD, thereby reducing the effectiveness of the budget as a stabiliser.
4	4	The existence of long time lags reduce the effectiveness of using budgetary policy as a stabiliser of aggregate demand and economic activity because the time it takes for them to take effect means the economic conditions may well have changed and the original considered impact of the policy may now be somewhat less than originally considered. For example, large scale infrastructure projects designed to stimulate aggregate demand may take so

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		long that by the time it is at its peak activity, the economy may have recovered, and the projects could add to inflationary pressures.
5	4	A possible advantage of using budgetary measures is that they can target particular economic problems more precisely for example the 10 000 home care packages (2019–20 Budget) will target a particular market where there are significant shortages in aged-care facilities. This will create jobs for health professionals to visit people in their own homes adding to employment in the health sector. Another example of how budgetary measures can target particular economic problems is the \$737b set aside for the treatment of mental health and drug abuse issues (2019–20 Budget).

4.10 ACTIVITIES

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	1	Monetary policy is a macroeconomic or demand-side instrument operated by the Reserve Bank of Australia (RBA) to manage the level of aggregate demand and economic activity. This is done mainly through changes in interest rates to alter the cost, availability and demand for credit, and the rate at which credit flows between the financial sector and the rest of the economy.
2	2	The RBA's main operational goal is the achievement of low inflation. It can also pursue the goals of strong sustainable economic growth and full employment.
3a	2	Inflation targeting refers to the achievement of an average target of an inflation rate of between 2–3 per cent a year over the business cycle.
3b	2	Monetary policy is regarded as an aggregate demand policy because it is done mainly through changes in interest rates to alter the cost, availability and demand for credit, and the rate at which credit flows between the financial sector and the rest of the economy.
3c	1	According to the Charter, the three main responsibilities of the RBA are: • Stability of the currency (low inflation) • Maintenance of full employment • The economic prosperity and welfare of the people of Australia
3d	2	If inflation is below the target range, the RBA is likely to aim to increase the rate of inflation in order to return the rate to be within the target zone. It will also do this in order create jobs to help maintain full employment, therefore helping the prosperity and welfare of the people of Australia.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
3e	2	During the past two years, the RBA has focused on economic prosperity and full employment by using low interest rates to encourage economic activity. Since the later half of 2022, however, the focus has shifted to low inflation as the RBA has acted to return inflation to level back within the target range.

4.11 ACTIVITIES

Check your understanding

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	2	Conventional monetary policy involves the RBA's direct guidance of the cash rate of interest that applies in the overnight or short-term money market. It will do this in a counter-cyclical manner to then affect other interest rates and can help to manage the level of AD and economic activity.
2a	1	The cash rate target is the main indicator of the RBA's monetary stance and represents the rate at which cash is borrowed and lent in the short-term money market.
2b	1	The overnight, or short-term money market is the market setup by the RBA, where banks borrow cash from and lend cash to each other, for very short periods of time, often just overnight.
2c	1	Exchange settlement accounts are held with the RBA and banks are legally required to maintain positive cash balances in these accounts, sufficient to meet daily interbank transactions.
2d	1	Counter cyclical monetary policy means that the RBA will set the target cash rate as a level which will work to push AD in the opposite direction of the business cycle. It means that, during a slowdown, the RBA will cut interest rates to increase AD and lift economic activity, but during an inflationary upturn or boom, it will raise interest rates to slow AD and control inflation.
2e	1	The policy interest rate corridor or band of interest rates within which borrowing and lending by all banks and some other financial institutions must occur. The upper and lower bands are set by the RBA, meaning the banks will operate within this bands.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
2f	1	Open market operations (abbreviated OMO involve the RBA either selling Australian government bonds to the banks, or alternatively, repurchasing them (repos) from the banks, allowing the RBA to directly change the supply of cash and keep the cash rate on target.
3a	2	As the RBA operates monetary policy in a counter-cyclical manner, lowering the cash rate to 0.1% would occur during a contractionary phase in the business cycle, or recession. The RBA would be lowering rates to boost AD and encourage a greater level of economic activity, in order to return inflation to its preferred target and to increase growth and lower unemployment.
3b	2	A cut in the cash rate would see a change in the rates which band the interest rate corridor. Both the deposit and lending rates would fall; for instance, in March 2022 when the cash rate fell to 0.1% the deposit rate would effectively be 0 and the lending rate would be 0.35%.
3c	2	A lower interest rate in the short-term money market would likely flow through to other markets and result in lower rates on home loans and savings accounts. This would encourage spending and discourage savings, leading to higher consumption spending, AD and economic activity.
4a	1	As the RBA operates monetary policy in a counter-cyclical manner, raising rates would occur during an expansionary phase in the business cycle, or boom. The RBA would be raising rates to lower AD and lower the level of economic activity, in order to lower the rate of inflation and economic growth.
4b	2	An increase in the cash rate would see a change in the rates which band the interest rate corridor. Both the deposit and lending rates would rise; for instance, in October 2022 when the cash rate rose to 2.60%, the deposit rate would rise to 2.35% and the lending rate would be 2.95%.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
4c	2	A higher interest rate in the short-term money market would likely flow through to other markets and result in higher rates on home loans and savings accounts. This would discourage spending and encourage savings, leading to lower consumption spending, AD and economic activity.

4.12 ACTIVITIES

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	2	Transmission mechanisms are the ways in which an increase or decrease in the cash rate operates to bring about a rise or fall in aggregate demand and economic activity, and thereby improve stability. Transmission mechanisms work through four channels to influence the way in which households and businesses may borrow money (cost of and availability of credit), increasing spending by increasing household cash flow and the asset values effect by making assets seem appear more attractive.
2a	2	Savings and investment - higher interest rates make borrowing to finance investment and consumption spending relatively more expensive. Furthermore, higher rates also make saving (affecting leakages) more attractive. Together, these can help to reduce AD and economic activity.
2b	2	The cash flow of households and businesses — a rise in the cash rate target will decrease the discretionary income of households by increasing the amount that has to be repaid on existing loans such as mortgages, reducing consumption spending and aggregate demand.
2c	2	The supply or availability of credit — higher interest rates will decrease the availability of credit on offer from financial institutions, leading to lower levels of lending, which in turn discourages consumption and investment, leading to a decrease in aggregate demand.
2d	2	The exchange rate — a rise in the interest rate increases the value of the Australian dollar, which reduces competitiveness and lowers exports, reducing aggregate demand.
2e	2	The wealth or asset values effect — higher interest rates make it more difficult to borrow for the purchase of assets such as property, placing downward pressure on the value of these assets. Those holding such assets will feel less wealthy, and more less to spend money, leading to a fall in aggregate demand.

4.13 ACTIVITIES

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	2	Monetary policy stance can be defined as the objectives of the RBA in determining the need for a change in the cash rate, i.e. whether this change is designed to slow or stimulate aggregate demand and the level of economic activity.
2	2	A contractionary monetary policy stance is one in which the RBA seeks to raise the cash rate and slow economic activity, while an expansionary monetary stance is one in which the RBA seeks to lower the cash rate and stimulate aggregate demand, and hence economic activity.
3	2	The RBA's checklist of indicators are a range of statistics and measurements used by the RBA Board at its monthly meetings to decide if there is a need to change the cash rate target and stance of monetary policy.
4a	4	i. The RBA would reduce its cash rate when: inflation was low; levels of national spending and business and consumer confidence were low; unemployment was high; and international trends in inflation and economic activity were low. ii. The end of the global pandemic and record high levels of confidence would likely see the RBA tighten its monetary policy in order to prevent the high levels of confidence causing a significant increase in spending, which could lead to high levels of AD and demand-push inflation.
4b	4	i. A rise in Australia's unemployment rate to 6.2 per cent would be likely to cause the RBA to <i>loosen</i> its monetary policy stance, so as to stimulate aggregate demand and economic activity to bring the unemployment rate down. ii. The end of the global pandemic and record high levels of confidence would likely see the RBA tighten its monetary policy in order to prevent the high levels of confidence causing a significant increase in spending, which could lead to high levels of AD and demand-push inflation.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		iii. <i>Lower inflation rates and official interest rates overseas</i> would be likely to cause the RBA to <i>loosen</i> its monetary policy stance, so as to keep inflation within the target range of 2–3 per cent, and to prevent a rise in the exchange rate of the Australian dollar. iv. <i>A slowdown in GDP growth</i> would be likely to cause the RBA to <i>loosen</i> its monetary policy stance, so as to stimulate aggregate demand and economic activity, and boost GDP growth. v. <i>Rising prices for oil, fruit and vegetables</i> would be likely to cause the RBA to <i>tighten</i> its monetary policy stance, so as to reduce aggregate demand and lessen the impact of inflationary pressures. vi. <i>The collapse of the property and share markets</i> would be likely to cause the RBA to <i>loosen</i> its monetary policy stance, so as to stimulate aggregate demand and economic activity. vii. <i>A very large appreciation of the Australian dollar</i> would be likely to cause the RBA to <i>loosen</i> its monetary policy stance, so as to reduce interest rates and bring down the value of the Australian dollar on foreign exchange markets.

4.14 ACTIVITIES

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	4	The RBA used monetary policy to help promote domestic stability during the past two years by adopting an expansionary stance. This was necessary because although inflation was low, unemployment was relatively high and economic growth below trend. At the same time, the need to reduce the government deficit has led to a relatively contractionary stance on the part of the federal government.
2a	3	In March 2020 the stance of Monetary Policy became more expansionary as it lowered the by 50 basis points from 0.75% to 0.25%. The RBA did this to support AD during the onset of the pandemic in order to help households and businesses maintain survive the impact of COVID-19 on the economy and to prevent a rapid rise in the rate of unemployment.
2b	3	Three important reason from the checklist which explain why the RBA acted as they did in March 2020 are: • Support jobs: allow consumption spending to continue at level where businesses are still required to employ people, and do not need to lower employment • Incomes: incomes would be likely to fall, and lower rates help protect those with mortgages • Budgetary policy: monetary policy is working with the government to ensure credit is available to households and businesses
2c	3	On examining the indicators, the RBA Board would have decided lower rates were required to support the economy and then announced a cut in the cash rate. This would then have seen both the deposit and lending rates in the short-term money market fall, lowering the bands of the interest rate corridor around the lower cash rate. With lower rates in the short-term money market, rates in other markets, such as those for home loans or deposits, would also have fallen.
2d	3	Three transmission mechanisms are:

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		• Savings and investment — when the RBA decides to reduce the cash rate target, households and businesses are more likely to borrow money and less likely to save, leading to a rise in aggregate demand and economic activity. • The cash flow of households and businesses — a reduction in the cash rate target will increase the disposable income of households by reducing the amount that has to be repaid on existing loans such as mortgages, stimulating consumption spending and aggregate demand. • The availability of credit — lower interest rates will increase the availability of credit on offer from financial institutions, leading to higher levels of lending, which in turn encourages an increase in aggregate demand.
3a	2	During 2022, as Australia recovered from the pandemic, the aggregate demand and the economy grew strongly, with GDP growing at 3.%. A significant concern was that inflation was rapidly rising, and the CPI was at 6.1% by June 2022.
3b	2	During the pandemic, household saving rates increased noticeably, and as the pandemic ended households used these savings to increase their consumption. This, coupled with low interest rates, helped to drive strong levels of domestic demand. Supply costs were also rising, during higher energy prices and supply chain disruptions caused by the Russian invasion of Ukraine.
3c	6	The RBA used monetary policy to help promote domestic stability during the past two years by adopting an expansionary stance. The graph below illustrates how this expansionary monetary policy should affect aggregate demand, and hence economic activity, measured by level of GDP. The RBA further lowered the cash rate from 1.5 per cent in May 2019. Down to 0.1% in November 2020, where it remained until the middle of 2022. The aim is to shift aggregate demand from a level of GDP where the economy is operating below capacity (AD0 and GDP0 on the graph) to a position where the economy is operating at full capacity (AD1 and GDP1 on the graph), but where inflation is relatively mild (an increase in the general price level from P0 to P1).

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
4	3	An increase in interest rates by the RBA would affect the listed conditions as follows: i. The level of business investment spending — higher interest rates will discourage investment as the cost of borrowing rises ii. Residential building approvals and new car sales — as residential buildings and new cars are usually bought on credit, higher interest rates will reduce these sales as the cost of borrowing deters people from obtaining the credit required to made the purchase . iii. Cost and demand inflation — cost push inflation may rise, as business with loans will see loan repayments rise, increasing their cost of production. However, demand pull inflation is likely to fall as there is less incentive to borrow and spend, more incentive to save, which will combine to reduce AD. iv. Imports of consumer goods and services — higher interest rates may have a mixed effect; on the one hand, households will have lower discretionary incomes and less willingness to borrow and spend, which would reduce the

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		demand for these imports; however, higher rates will place upward pressure on the AUD, making these imports relatively cheaper and more affordable, which may see an increase in the demand for these items. v. The level of cyclical unemployment — as higher interest rate discourage spending and reduce AD, there is likely to be an increase in the level of cyclical unemployment.
5	2	Conventional monetary policy involves the RBA countercyclically manipulating the cash rate target. In turn, the cash rate indirectly affects other interest rates and can help to manage the level of AD and economic activity. During a slowdown in economic activity, conventional monetary policy would see the RBA lower the cash rate. Unconventional monetary policy, however, differs as involves the RBA using tools other than changing the cash rate target to manage AD and economic activity. Recently the RBA has used asset purchases/quantitative easing and term lending facilities to help further lower borrowing costs and interest rates on bank loans, as additional ways of stimulating AD.

4.15 ACTIVITIES

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	2	Important strengths of using monetary policy to help promote domestic economic stability include: • Flexibility due to the short time lag in implementation — the RBA meets on the first Tuesday of every month except January, so it can respond quickly to any changes in economic conditions. • Monetary policy is most effective in slowing inflation (rather than stimulating economic growth) because rises in interest rates can have an immediate impact on levels of aggregate demand as borrowers are forced to make higher repayments on loans, reducing the amount that can be spent on other things. • Monetary policy has fewer political considerations than budgetary policy because it is carried out by the RBA, which is independent of government.
2	2	Key weaknesses of using monetary policy to help promote domestic economic stability include: • Monetary policy has a short implementation lag, but can have a long impact lag, with a change in interest rates taking up to three years to flow through the economy. • Monetary policy is imprecise and blunt — it cannot target particular areas of concern in the economy; it applies Australia-wide, despite the fact that different economic conditions may apply in different states; and banks do not always pass on the full amount of a rate cut. • Monetary policy only operates in indirect ways, and may not work very well in overcoming recessionary conditions. Some borrowers will take advantage of lower interest rates to pay down debt rather than spend more on consumption or investment. • Monetary policy may be undermined by budgetary policy — an expansionary fiscal policy may put upward pressure on interest rates because of the need to issue government bonds to pay for budget deficits. The reverse may happen when a contractionary fiscal policy is adopted. • The success of monetary policy may depend on the prevailing level of consumer and business confidence. Weak levels of confidence may result in households and businesses not responding to expansionary monetary policy.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
3a	2	One strength of using monetary policy to reduce inflation and slow the rate of economic activity is that it has significantly fewer political implications than budgetary policy. Budgetary policy is implemented by the federal treasurer, who is an elected member of the Australian government. In contrast, monetary policy is implemented by the RBA, which is fairly independent of the government. During an inflationary boom, rises in interest rates by the RBA are probably less likely to attract adverse political or voter reactions, than if the government increases tax rates or makes cuts in government outlays on education, welfare and health.
3b	4	Two important weaknesses that limit the effectiveness of monetary policy as a way to address high inflation are: • Long 'impact' time lags, which make monetary policy less useful as a stabiliser. There can be long time lags associated with the recognition, implementation and impact of many government policies, so some measures run the risk of being mistimed and becoming pro-cyclical. This can limit their usefulness as a short-term stabiliser of AD and may in fact end up slowing the economy unnecessarily if inflation rates have already fallen. • Monetary policy may be undermined by budgetary policy. While monetary policy may be contractionary to slow the economy, budgetary policy may be operating in an expansionary manner and therefore reduce the effectiveness of monetary policies attempts to slow the economy and reduce the level of inflation.
3c	2	One important strength of using monetary policy to counter slowing growth and rising unemployment is the short implementation time lag associated with monetary policy. Monetary policy is very flexible and can be quickly changed. As the RBA Board normally meets during most months of the year (or more regularly if required), this means that a change in the cash rate target could theoretically be implemented quickly, the day after its meeting. This strength makes the policy more flexible than some discretionary budgetary measures, which are normally changed only once a year.
3d	4	Two important weaknesses of using monetary policy to counter slowing growth and rising unemployment are: Monetary policy can be a less effective stabiliser in a recession as households cannot be forced to spend the higher discretionary incomes they may now have, nor can be forced to take out loans. If consumer confidence is low during a downturn, lower rates will do little to persuade households to increase their consumption to boost AD. The banks are not obliged to pass on rate cuts to their customers. Australia has substantially deregulated interest rates so that the RBA does not directly set what banks actually charge customers. For instance, banks may respond

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		to a cut of 0.5 per cent in the RBA cash rate by reducing their customer interest rates by only 0.4 per cent, choosing instead to widen their lending margins. With the banks choosing the extent to which they pass on interest rate cuts or rises, this is likely to reduce the effectiveness of monetary policy.

UNIT 4: MANAGING THE ECONOMY

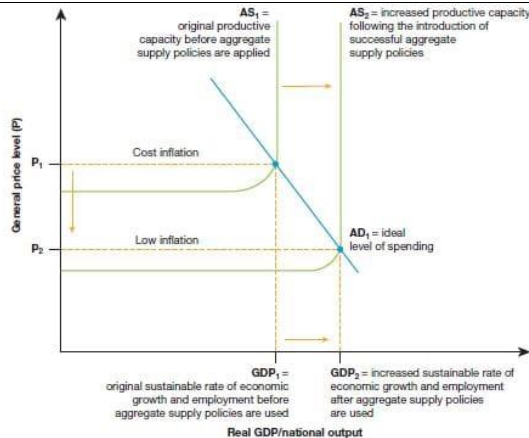
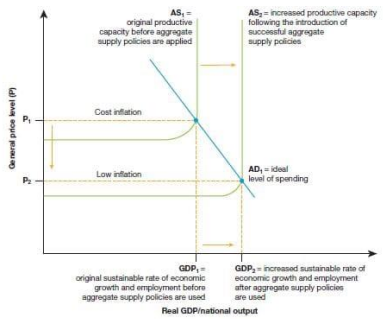
AOS 2 - Aggregate supply policies

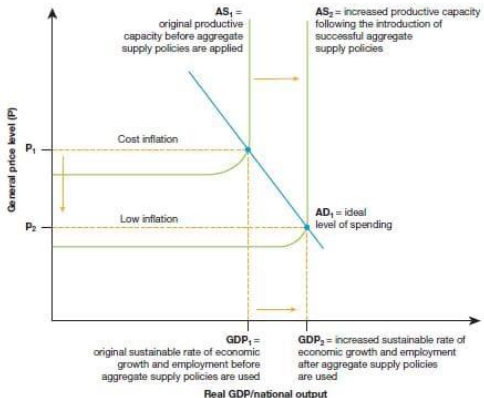
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5.6 ACTIVITIES.....	28
5.7 ACTIVITIES.....	31

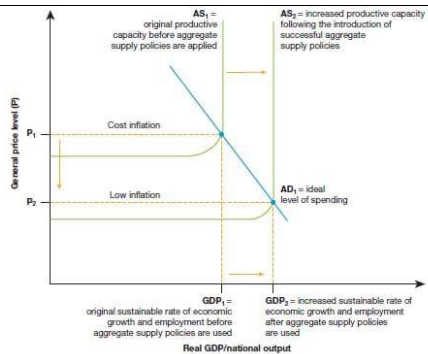
5.2 ACTIVITIES

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	2	Aggregate supply policies are government strategies that seek to create more favourable or sustainable supply-side conditions for firms and individuals that produce goods and services. For example, they would be expected to help increase efficiency so that output rises faster than the rise in inputs; increase the quantity of available productive resources; provide better incentives for individuals and businesses; increase the level of competition in markets; and reduce any instances of market failure.
2	4	The main aims of aggregate supply policies include: 1. Improving efficiency in resource allocation — growing Australia’s productive capacity, potential GDP and aggregate supply through increasing efficiency (the change in the ratio of output to input). 2. Boosting the sustainable, non-inflationary rate of economic growth — our rate of economic growth is limited to the speed at which our productive capacity can expand. This is dependent on the level of production that can be achieved from available resources at any given time. 3. Promoting low inflation by cutting production costs — aggregate supply policies such as market deregulation and infrastructure investment aim to keep costs down and thus reduce cost inflationary pressures on businesses. 4. Promoting full employment, especially in the long term — aggregate supply policies such as spending on education and training and welfare and tax reform can improve the flexibility and efficiency of labour resources and improve the employability of a greater number of people. 5. Increasing Australia’s international competitiveness — aggregate supply policies can make local businesses more internationally competitive by improving efficiency, and keeping production costs and inflation low.
3a	4	Aggregate supply policies differ from aggregate demand policies in the following ways:

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		• They work in different ways and use different theories — aggregate demand policies influence domestic macroeconomic conditions by stabilising growth in spending, based on Keynesian economic theory that demand creates supply. Aggregate supply policies try to grow the capacity to produce output, particularly by improving efficiency. In this instance, supply creates demand. • They work on slightly different problems — aggregate demand policies attempt to avoid cyclical problems caused by booms and recessions by stabilising spending. Aggregate supply policies deal with economic problems of a structural nature, such as cost inflation or natural unemployment. • They operate in different time frames — aggregate demand policies focus more on the short- to medium-term drivers of the economy, while aggregate supply policies tend to concentrate more on longer-term factors determining the economy's performance.
3b(i)	2	Allocative efficiency occurs in the economy when resources are allocated to those goods and services that maximise the satisfaction of society's needs and wants. Productive efficiency (or technical efficiency) occurs when firms are using the least-cost method to produce goods and services most efficiently.
3b(ii)	2	Intertemporal efficiency occurs where the market or the economy has found the appropriate balance between allocating resources to current consumption and future consumption. There needs to be sufficient savings for investment in order to meet future consumption needs. Intertemporal efficiency is different from dynamic efficiency, which is concerned with firms being creative and adaptive to changing economic circumstances. Firms are being dynamically efficient when they use the latest production methods and technologies, adopting world's best practice and constantly reskilling their labour force. Innovation, product development and marketing are all part of dynamic efficiency.
3c(i)	1	The following AD–AS diagram illustrates how successful aggregate supply policies might have the effects listed below the diagram.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		 The aggregate supply line — this has moved outward to the right from AS_1 to AS_2, indicating an increased aggregate supply. The increased supply shown in the shift from AS_1 to AS_2 has been achieved with a drop in the general price level from P_1 to P_2, suggesting an improvement in the efficiency in resource allocation.
3c(ii)	1	The following AD–AS diagram illustrates how successful aggregate supply policies might have the effects listed below the diagram. 

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		The sustainable rate of economic growth — the increased efficiency achieved is likely to lead to a more sustainable rate of economic growth once the aggregate supply policies have been successfully applied.
3c(iii)	1	The following AD–AS diagram illustrates how successful aggregate supply policies might have the effects listed below the diagram.  The inflation rate — the drop in the equilibrium general price level is an indication that successful aggregate supply policies do not add to inflationary pressures.
3c(iv)	1	The following AD–AS diagram illustrates how successful aggregate supply policies might have the effects listed below the diagram.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		 Material living standards — low-cost growth in aggregate supply will improve average living standards as increased GDP provides a greater supply of goods and services without high inflation.
3d(i)	1	Aggregate supply policies can be used to achieve the following government goals: Low inflation (price stability) — supply-side policies can help to improve productivity and efficiency in the use of the economy's productive resources and by encouraging firms to cut their production costs. This will increase the productive capacity and shift the supply line to the right, allowing for increased production to meet the growing demand, without adding to cost inflation pressures. This helps to promote the goal of low inflation.
3d(ii)	1	Aggregate supply policies can be used to achieve the following government goals: Strong and sustainable economic growth — by lifting efficiency, supply-side policies can increase the output gained from a given quantity of resources, increasing productive capacity and promoting strong and sustainable economic growth.
3d(iii)	1	Aggregate supply policies can be used to achieve the following government goals:

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		Lower unemployment — in the long term, aggregate supply policies (such as spending on education and training, welfare and tax reforms, and labour market reforms) can help reduce the rate of natural unemployment. They might do this by focusing on improved flexibility and efficiency in our use of labour resources, creating incentives that reward effort and work, and ensuring workers have appropriate skills and training so they are more employable. Aggregate supply-side policies can help cut production costs and make Australian firms and workers more competitive and profitable. When profits are stronger, fewer firms close down and more start up or expand. This should eventually help to reduce structural unemployment and create more jobs. Living standards ought to benefit from this. However, it is possible in the <i>short-term</i> that some aggregate supply policies may also cause a rise in the level of structural unemployment in some industries.
3d(iv)	1	Aggregate supply policies can be used to achieve the following government goals: Improvements in living standards — in the short term, aggregate supply-side policies could cause structural unemployment. This will create a more unequal distribution of income. In the longer term, aggregate supply-side policies can help to promote a more equitable distribution of income by growing efficiency, production and incomes, ensuring that more people have improved access to basic goods and services and enjoy better living standards. Greater efficiency and lower production costs reduce the price of goods and services, making them more affordable. More efficient firms become more competitive, allowing them to expand and employ more people, reducing structural unemployment and generating higher incomes. An increase in efficiency increases the productive capacity and potential GDP per capita, fostering improved equity in the distribution of income and better living standards. Greater efficiency and higher incomes mean that government revenues increase, making the provision of welfare and basic services for the neediest more affordable, thus promoting improved equity.

5.3 ACTIVITIES

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	2	Aggregate supply budgetary policies seek to use changes in budget receipts and/or outlays to help allocate more resources into key areas, correct market failure, promote greater efficiency and build the economy's long-term productive capacity. Examples of supply-side budgetary policies include investment in national infrastructure, spending on education and training, selective use of industry assistance, and spending on research and development.
2a	2	Outlays on infrastructure Government budget outlays on national infrastructure involve spending on capital resources associated with areas like transport, power, telecommunications and water, that are needed to produce other goods and services. Outlays on education and training Government spending on training and education involves budget outlays that are used to help cultivate better skills, innovation and creativity of Australia's labour resources, growing the quality or productivity of Australia's human capital resources. This helps to boost our productive capacity, aggregate supply and the potential level of GDP. Budget subsidies Subsidies are a budgetary measure designed to improve resource allocation, grow productive capacity and make aggregate supply conditions more favourable. They generally involve government financial incentives to encourage particular types of production — either as cash payments (equal to about 45 per cent of the total value), or as tax concessions (equal to around 55 per cent of the total value). Budget support for research and development

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		Government support for research and development (R&D) in the budget is designed to grow productive capacity and aggregate supply by encouraging institutions, universities, businesses and individuals to innovate and develop new ideas, processes and products. Financial support creates incentives that involve either cash payments, or more commonly, generous tax incentives or write-offs up to 150 per cent of the cost of R&D expenditure. This helps to offset some of the costs involved. Apart from encouraging innovation and the application of new technology that increases technical and dynamic efficiency needed to grow the economy's capacity, this support also strengthens Australia's international competitiveness. Government tax reform mostly involving lower tax rates. Tax reform in recent years has often involved reducing tax rates (although there are also other aspects). It can make conditions more favourable for individuals and firms supplying goods and services, so they are more willing and able to produce and expand the economy's productive capacity.
2b	4	Outlays on infrastructure By improving infrastructure, the government is able to increase the quantity and quality of capital resources used by business to produce goods and services. It lowers related production costs and improves our international competitiveness. It ultimately makes aggregate supply conditions more favourable for producers, encouraging business expansion, growing productive capacity, AS, and the potential, non-inflationary rate of economic growth, as demonstrated in the diagram below. Outlays on education and training Government spending on education, training and skills increases the quality of 'human capital' and labour resources available, easing labour and skills shortages. It helps to grow technical and dynamic efficiency, and may also reduce market failure involving positive externalities. Importantly, improved education and training increases labour efficiency, increases productivity and slows wage growth and cost inflation pressures. It makes aggregate supply

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		conditions more favourable for producers, encouraging the expansion of productive capacity, AS and the sustainable rate of economic growth, as demonstrated in the diagram below. Budget subsidies Subsidies can help lower the production costs for particular industries and increase their profits, leading to business expansion and more jobs, rather than closure. Subsidies enable firms to profitably sell their goods and services at lower prices, increasing their affordability and strengthening international competitiveness. By encouraging particular types of production, subsidies can reduce the market failure associated with positive externalities where some socially-beneficial goods or services are under-produced because decision makers focus on private gains, rather than considering the broader social benefits affecting society's general wellbeing. Budget support for research and development Government outlays on R&D to encourage innovation as they lower the costs of research and development, which may lead to the creation of new technologies which will increase technical efficiency. This helps firms to develop and sell their new products at a cheaper price, slowing cost inflation and strengthening international competitiveness. The research may also help to solve market failure involving positive externalities by encouraging the production of goods or services with wider social benefits that would otherwise be underproduced, thereby improving society's general satisfaction, wellbeing and living standards. If the research is successful, it makes aggregate supply conditions more favourable for producers by helping to cut their production costs and by encouraging innovation and technical efficiency, the expansion of productive capacity and the potential, non-inflationary rate of economic growth, as shown in the diagram below. By encouraging business expansion rather than closure, structural unemployment should be lower than otherwise. Government tax reform mostly involving lower tax rates. Tax reform is designed to help increase the after-tax profits of businesses so they can profitably sell at lower prices, slowing cost inflation and improving international competitiveness. It can help to make aggregate supply conditions

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		more favourable for producers by incentivising personal effort, while also encouraging business investment in new equipment needed to increase productivity, thereby expanding productive capacity, AS and the potential rate of economic growth, as shown in the diagram below. Further, tax reform can help to increase business after-tax profits, so firms expand capacity rather than close, thereby keeping structural unemployment lower than otherwise. It may also improve general living standards through slowing cost inflation and increasing production, employment, incomes and purchasing power. This diagram is applicable to all options above. General price level (P) P_1 P_2 Cost inflation Low inflation $AS_1 =$ original productive capacity/AS before budgetary policies $AS_2 =$ increased productive capacity/AS following the introduction of successful budgetary policies $AD_1 =$ ideal level of spending $GDP_1 =$ original sustainable rate of economic growth and employment $GDP_2 =$ increased sustainable rate of economic growth and employment Real GDP/national output
3c(i)	2	Outlays on infrastructure By creating favourable supply conditions, the level of aggregate supply is increased, as is the level of productive capacity. This combines to make producers more profitable, and willing and able to supply. This will lead to an expansion in AD, and with lower prices, helping to ensure growth stays sustainable.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		Outlays on education and training By creating favourable supply conditions through a more skilled and efficient labour force, the level of aggregate supply is increased, as is the level of productive capacity. This combines to make producers more profitable, and willing and able to supply. This will lead to an expansion in AD, and with lower prices, helping to ensure growth stays sustainable. Budget subsidies By creating favourable supply conditions through lowering the cost of production for businesses which receive the subsidy, the level of aggregate supply is increased, as is the level of productive capacity. This combines to make producers more profitable, and willing and able to supply. This will lead to an expansion in AD, and with lower prices, helping to ensure growth stays sustainable. Financial support of R&D By creating favourable supply conditions through improved technology and production methods, the level of aggregate supply is increased, as is the level of productive capacity. This combines to make producers more profitable, and willing and able to supply. This will lead to an expansion in AD, and with lower prices, helping to ensure growth stays sustainable. Tax reforms. By creating favourable supply conditions through lowering the cost of production for businesses by reducing taxes, the level of aggregate supply is increased, as is the level of productive capacity. This combines to make producers more profitable, and willing and able to supply. This will lead to an expansion in AD, and with lower prices, helping to ensure growth stays sustainable.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
3c(ii)	2	Outlays on infrastructure By lower cost of production, these policies help reduce cost push inflation, which will improve our international competitiveness by lowering prices and will also help to achieve the goal of low inflation Outlays on education and training By lowering cost of production through higher productivity and an increase in the size of the labour supply, these policies help reduce cost push inflation, which will improve our international competitiveness by lowering prices and will also help to achieve the goal of low inflation. Budget subsidies By lowering cost of production, these policies help reduce cost push inflation, which will improve our international competitiveness by lowering prices and will also help to achieve the goal of low inflation. Subsidies can also encourage restructuring, which can help keep costs down. Budget support for research and development By lowering cost of production, these policies help reduce cost push inflation, which will improve our international competitiveness by lowering prices and will also help to achieve the goal of low inflation. Subsidies can also encourage restructuring, which can help keep costs down. Government tax reform mostly involving lower tax rates.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		By lowering cost of production through lower taxes and by building the labour force through a greater incentive to work and innovate, tax reform policies help reduce cost push inflation, which will improve our international competitiveness by lowering prices and will also help to achieve the goal of low inflation.
3c(iii)	2	Outlays on infrastructure As infrastructure projects help to make aggregate supply conditions more favourable, this will reduce business closures and reduce the level of structural unemployment over the long-term. As the economy grows, due to its higher productive capacity and improved competitiveness, new jobs may be created, which will further help to achieve the goal of full employment. Outlays on education and training In the long-term, budget outlays on education and training help to reduce structural unemployment. Having the right skills can help to make our labour force more employable and job ready, reducing structural unemployment that is caused by the mismatch of skills and job requirements. Also, education and training can ease skills shortages, slowing the growth in wage costs that otherwise would occur. This encourages business expansion, fewer closure sand improved competitiveness, leading to less structural unemployment. Budget subsidies As subsidies help to make aggregate supply conditions more favourable, this will reduce business closures and reduce the level of structural unemployment over the long-term. As the economy grows, due to its higher productive capacity and improved competitiveness, new jobs may be created, which will further help to achieve the goal of full employment. Budget support for research and development

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		If R & D grants lead to better production methods which help to make aggregate supply conditions more favourable, this will reduce business closures and reduce the level of structural unemployment over the long-term. As the economy grows, due to its higher productive capacity and improved competitiveness, new jobs may be created, which will further help to achieve the goal of full employment. Government tax reform mostly involving lower tax rates. As tax reform helps to make aggregate supply conditions more favourable, this increase business profitability and will reduce business closures and reduce the level of structural unemployment over the long-term. As the economy grows, due to its higher productive capacity and improved competitiveness, new jobs may be created, which will further help to achieve the goal of full employment.
3c(iv)	2	Outlays on infrastructure Lower prices will improve purchasing power and access to goods and services, which improves material living standards. As more people gain employment, this improves the self-esteem of those gaining work and helps to relieve financial stresses, which improve quality of life and non-material living standards. Outlays on education and training A more educated and trained workforce can help to lower prices, improve purchasing power and access to goods and services, which improves material living standards. As more people gain the skills to gain employment, the self-esteem of those gaining work increases and employment helps to relieve financial stresses, which improve quality of life and non-material living standards. Budget subsidies Lower prices will improve purchasing power and access to goods and services, which improves material living standards. As more people gain employment, this improves the self-esteem of those gaining work and helps to

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		relieve financial stresses, which improve quality of life and non-material living standards. Also, the promotion of previously under-produced items which a broad social benefit will also improve overall living standards. Budget support for research and development Lower prices will improve purchasing power and access to goods and services, which improves material living standards. As more people gain employment, this improves the self-esteem of those gaining work and helps to relieve financial stresses, which improve quality of life and non-material living standards. Also, new ways of addressing market failures (such as pollution) may be developed, which could improve environmental outcomes and non-material living standards. Government tax reform mostly involving lower tax rates. Lower prices will improve purchasing power and access to goods and services, which improves material living standards. As more people gain employment, this improves the self-esteem of those gaining work and helps to relieve financial stresses, which improve quality of life and non-material living standards.
3d	4	Outlays on infrastructure One weakness of outlays on infrastructure is that there has been a partial failure to produce a consistent flow of high-quality infrastructure projects, adding to delays. In part, this has meant that infrastructure has not kept pace with population growth (substantially driven by immigration). It has created bottlenecks in transport, water, rail and ports, slowing the growth in capacity and reducing the effectiveness of infrastructure policy. A second failure is that there are financial constraints because of the need to rein in the size of budget deficits and slow the rising level of public sector debt. This creates financial problems for future governments as they must deal with the debt repayments and limits the ability of governments to spend in other areas. Outlays on education and training

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		One weakness of budget outlays on training and education as an aggregate supply policy are the financial constraints involved. Even though education and training are key drivers of productivity, economic growth and living standards, and despite a rise in government budget outlays on education, funding as a proportion of GDP is still below other comparable countries (Australia was ranked 13th in 2020–21). One reason for inadequate spending in this area over recent years, is concern about the impact of government spending and the level of debt and the burden this creates for generations. A second weakness is that sometimes the funding is misdirected. Despite the spending of billions of dollars on education and training each year, some of this has been directed towards the purchase of dubious resources (e.g. school canteens and gyms), often based on political considerations rather than social or economic outcomes. Budget subsidies One weakness in using subsidies as an aggregate supply policy is that they involve trade-offs. In a way, the payment of subsidies to one group or industry represents a higher tax levied on other individuals or businesses. There is also an opportunity cost or trade-off in terms of other budget outlays (such as education, infrastructure, health and welfare) that cannot go ahead or have to be cut. A second weakness is that subsidies can reduce efficiency in the allocation of resources by diverting them into areas of cost disadvantage. Additionally, some subsidies can allow local firms to remain inefficient and avoid restructuring their production more competitively or perhaps undertaking R&D. Budget support for research and development One weakness associated with budgetary support for R & D as an AS policy is the long time lags before the impact is felt. There are usually often quite long impact time lags between providing the grants and seeing their effects on innovation and efficiency, as years may pass before the new technology can be successful developed and trialled. Financial support is not a short-term solution.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		A second weakness is that the outcomes are uncertain. R&D grants come with no guarantee of success. Results are uncertain. Indeed, the money might produce no benefit, increasing the opportunity cost of the government's decision and lowering society's wellbeing. Government tax reform mostly involving lower tax rates. There are certain weakness in using tax reform as an aggregate supply policy. One weakness is the inconclusive evidence surrounding the benefits of tax reform. The evidence that very low rates of personal income tax boost efficiency and grow our productive capacity, are questioned by some economists who argue that higher tax rates will create an increased incentive and necessity to work even harder to get ahead and have higher incomes, especially if over-generous welfare is not an option. Lower PAYG rates might simply allow middle- and upper-income earners to use their lower tax rate to enjoy more leisure time, without adding to the availability of labour resources or productive capacity. A second weakness is that tax reform involves trade-offs, as reform involving lower tax rates to increase efficiency, is seen by some as conflicting with the government's pursuit of an equitable distribution of income. To them, lower tax rates on companies, superannuation and capital gains mostly help the wealthy, and the supply-side idea that benefits will eventually 'trickle down' to those on lower incomes, only allows the rich to become even better off.

5.4 ACTIVITIES

Question	Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	4	Australia's skilled immigration policy involves the setting of annual targets to manage the overall number of people allowed visa entry. This affects the size and growth of both the general population and our available labour force, expanding Australia's productive capacity and aggregate supply. The policy allows flexibility since the annual intake target can be varied to reflect changing domestic conditions and overseas circumstances. The policy gives priority to immigrants who have special types of skills and talents where we have current labour and skills shortages. It also helps to grow productivity or the quality of our human capital or labour resources available, again boosting capacity and aggregate supply. It encourages those in younger age groups (around 80 per cent of all entrants are aged less than 30 years) who are more likely to make a valuable and ongoing economic contribution to the Australian economy for many years to come, temporarily slowing the effects of our ageing population.
2	2	Australia needs a skilled migration to overcome shortages of skilled labour in Australia. Skilled immigration is a way to quickly the shortages and build the productive capacity of the economy. In the longer term, skilled immigration can help to alleviate some of the problems caused by our aging population, which include potential labour shortages, higher wages and a worsening fiscal position.
3a	5	An increase in immigration can increase the rate of sustainable economic growth, both in the short- and long-term. From the supply-side, an increase in immigration increases the size of the labour force, the skills and the participation rate. In the short-term, this increases productive capacity and aggregate supply. In the longer-term, immigration can cause an increase in the birth rate, affecting the future size of the population. It will change the composition of the labour force, with more relatively young skilled migrants in the labour force as the current baby boomers retire. Skilled migrants will help to maintain the future size and skills of the labour force so the productive capacity will be maintained, labour shortages won't occur and economic growth can be sustained.
3b	14	The impact of Australia's immigration policy on the labour force would affect the following:

Question	Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		1. The size of the labour force: Immigration policies have increased the size of the labour force, because immigration is skewed towards bringing in migrants of working age. Because of an aging population, the size of Australia's labour force would have begun to decline in 2011–12, causing a downturn in aggregate supply. 2. Labour productivity: In recent years immigration policy has focused on attracting skilled migrants with particular qualifications and talents. ABS figures show that, on average, overseas-born males and females generally have higher educational qualifications than Australian-born individuals in all age groups. These skills and qualifications can have a positive impact on productivity, as more highly educated individuals are likely to be able change and improve work practices to achieve improvements in this area. 3. The participation rate: Recent trends have shown a negative impact of immigration on the participation rate. Newly arrived migrants may take some time to enter the labour market, particularly as they may not have the required language skills. In the longer term, the gap between males born overseas and those born in Australia has decreased, with similar participation rates for both groups. Skilled migrants generally have a higher participation rate in the labour market than those born in Australia, but the participation rate for female migrants not in the skilled category is considerably lower than the participation rate for Australian-born women. 4. The unemployment rate: Immigration increases the supply and skills of labour, and influences the age distribution of the labour market because the average age of migrants is 30 years. Immigration also reduces skills shortages. An increase in the supply of labour reduces the price of labour in the form of wages, so wage increases in the market are controlled. Immigration can reduce the unemployment rate if migrants entering the labour force are able to find employment. However, the unemployment rate could increase if the supply of labour increases, but there is insufficient demand for the labour (that is, unskilled migrants may enter the labour force or there may not be a demand for a particular skill). 5. The demand for labour: Immigration increases the demand for labour, as increased immigration results in increased numbers of households demanding goods and services. In order to provide these, firms need to expand and hire additional labour to produce those additional goods and services. 6. The inflation rate: Immigration can impact on the rate of inflation by increasing the supply of labour to reduce labour shortages, causing wages to rise more slowly and reducing cost inflation. Immigration increases the

Question	Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		size of the domestic market for goods and services. Local firms can produce on a bigger scale, with larger production runs allowing greater economies of large-scale production, lowering costs and allowing for cheaper consumer prices 7. Non-material living standards; Immigration has had a mixed effect on living standards, both material and non-material. The impact on non-material living standards is hard to measure. On the one hand, rapid population growth in the major capital cities has led to housing shortages, and consequent higher prices for housing, as well as traffic congestion. Some immigrant groups are perceived (not always accurately) as difficult or unwilling to integrate into society, and some groups are blamed for rising crime rates. These resentments on the part of some members of society can threaten social cohesion, and lead to the rise of extreme political views. On the other hand, Australia is generally recognised as a very successful multicultural nation, with all the vibrancy, tolerance and cultural richness that accompanies this.
4a	2	Australia has an ageing population. This means that a growing proportion of the population is in older age groups, nearing or beyond retirement. The population pyramid shows that the average age of our population is increasing.
4b	4	Two important problems that might be caused by Australia's ageing population are: • The economic cost to the economy. Older people will not be working or contributing to production and are going to require social infrastructure such as healthcare. There will be a significant increase in government outlays in the form of transfer payments. • An ageing population means fewer people as a percentage of the population are eligible to be in the workforce. A smaller workforce will have to service the needs of a larger population. This can cause labour shortages, impacting on the growth of the productive capacity of the economy and the aggregate supply line. This can slow the rate of economic growth and increase inflation as wages increase because of the labour shortage. A smaller workforce will result in a narrower base from which the government can receive income tax receipts, which will affect their ability to provide goods and services. Less taxation revenue is available for the government to provide the necessary goods and services. Living standards may be reduced.

Question	Marks	Answer/Exemplary response with <i>marking guide instruction</i>
4c	3	Immigration policies might be used to help reduce the impact of an ageing population through a strategic immigration policy focused on meeting our labour force requirements in terms of size and skills. Young skilled migrants add to the current labour force and participate in the labour force as older Australians retire. They also add to the rate of natural increase, causing an increase in the supply of labour in the future and helping to address the problem of a shrinking labour force.
5	4	One effect the government's planned increase in skilled immigration is that will increase the size of Australia's labour force (i.e. all those aged 15 and over, who are able and willing to work). This will help to reduced labour shortages and increased the quantity of our human capital resources. A second effect is the impact on productivity. As skilled immigration increases, the quality of the labour is increased. This leads to higher Labour productivity (usually measured by GDP per hours worked) and is an important driver of economic growth and higher real incomes. It closely reflects the skills and levels of training gained through education.
6	4	Strengths of using immigration policy to help promote strong and sustainable economic growth: • Immigration has helped to offset the negative effects on the size of the labour force caused by our ageing population. Having access to more labour resources potentially allows the economy to get bigger. • Immigration has significantly increased the supply of skilled labour and filled bottlenecks that would otherwise limit our productive capacity and sustainable rate of economic growth. In addition, skilled labour is generally more efficient than unskilled labour, adding to labour productivity and economic growth. • Immigration has grown the overall size of the population, increased the number of consumers and the demand for labour, and has helped some local firms gain greater efficiency through economies of large-scale production. Weaknesses of using immigration policy to help promote strong and sustainable economic growth:

Question	Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		- Some economists have drawn attention to its effects on Australia's environment and the impact that more rapid population growth has on water, land for housing, non-renewable natural resources, urban congestion, waste disposal and greenhouse gas emissions. These highly adverse environmental impacts could reduce our non-material living standards and ultimately make GDP growth less sustainable. - Currently, some of the potential productivity gains are not realised due to our failure to adequately recognise overseas education and training qualifications. This failure can have an impact on potential economic growth. - Income remittances abroad by immigrants back to their home country slows their addition to domestic demand, and there is a higher propensity to import goods and services. This can have a negative impact on economic growth within Australia. - Immigration policy may worsen the problem of the 'brain drain'. Indeed, over 30 000 qualified individuals a year leave Australia in search of better employment opportunities and higher incomes. These individuals could have contributed to enhanced economic growth in Australia.

5.5 ACTIVITIES

Question	Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	2	Trade liberalisation involves reducing the level of trade barriers or protectionism that shields local industry from import competition. It is characterised by: • cutting tariffs or the indirect tax that makes imports more expensive for consumers in local markets; • reducing subsidies or cash payments that help local firms cover their costs; • removing quotas and other restrictions on the type and volume of imports allowed entry into the country; • signing up many free trade agreements (FTAs) where there are no tariffs on trade between two countries(bilateral FTAs), and regional agreements (FTAs with groups or blocs of countries) • easing other restriction
2	2	Bilateral Free trade agreements (FTAs) involve Australia and another nation collaborating to remove various forms of protection of their local industries. They are often seen as beneficial because countries will be encouraged to specialise in areas of comparative cost advantage where opportunity costs are minimised and material living standards maximised.
3	4	By removing the barriers to trade and encouraging greater trade liberalisation, Australia becomes a more open economy and Australian businesses are forced to compete on international markets. This requires Australian businesses to make changes and reforms to remain competitive. They will need to find ways to lower their cost and production become more efficient and productive producers to compete. Trade liberalisation will also give Australia access to cheaper overseas items, which can help to lower cost of production and improve productivity. By improving our productive capacity through more resources and greater efficiency, we are making produces more willing and able to produce more profitable and therefore will more likely to see our level of aggregate supply increase.
4a	2	As trade liberalisation encourages competition and gives Australia access to lower priced imported inputs, Australian businesses will become more efficient with their production and produce items at lower prices. By lowering the cost of products we sell in international markets, we increase our competitiveness

Question	Marks	Answer/Exemplary response with <i>marking guide instruction</i>
4b	2	Trade liberalisation has led to greater efficiency, inflation has slowed. Trade liberalisation (especially FTAs) has grown our access to larger markets abroad, allowing local firms to gain greater economies of scale that cut their average unit costs of production. Trade liberalisation has greatly reduced the costs of imported equipment and raw materials purchased overseas, easing inflationary pressures. Trade liberalisation has forced local firms to restructure their operations more efficiently, cut production costs and apply the world's best practices in their production processes. This has increased dynamic efficiency and helped to reduce inflationary pressures.
4c	2	As Australians become more efficient producers more output gained from the same or fewer inputs, thereby growing Australia's production possibility frontier or productive capacity. This increases the potential rate of GDP growth. Trade liberalisation also allows local firms to access better equipment, materials, and technology at a lower cost, creating more favourable aggregate supply conditions needed to grow Australia's GDP. Finally, trade liberalisation has grown the size of Australia's export market, turbocharged sales and encouraged firms to boost production levels and expand GDP.
4d	2	By boosting efficiency and slowing domestic inflation, trade liberalisation may help to make local businesses more internationally competitive than otherwise, encouraging expansion, rather than closure. This has helped to reduce structural unemployment and create more jobs. Trade liberalisation, especially FTAs, have created bigger markets for our exports broad, allowing for increased sales and business expansion. This also creates job vacancies and helps to lower unemployment.

Question	Marks	Answer/Exemplary response with <i>marking guide instruction</i>
4e	2	Trade liberalisation as an aggregate supply policy, has had mostly positive effects on Australia's material and non-material living standards. In the longer term, trade liberalisation has encouraged international competitiveness and business expansion, created more jobs and lowered unemployment. This has led to higher real per capita incomes, consumption and material living standards. In addition, by expanding export markets and sales abroad and by lowering structural unemployment over the long-term, trade liberalisation has helped to support various aspects of non-material living standards including greater happiness, reduced social isolation, improved physical and mental health outcomes, and less financial stress and family conflict. However, in the short- to medium-term, both material and non-material living standards could be undermined. This is most likely among those employed in trade-exposed industries that are unable to restructure operations and use resources more efficiently, leading to business closures and structural unemployment. In these industries, lower employment and incomes not only cut consumption and material living standards, but also undermined non-material wellbeing by adding to stress and unhappiness among those who became unemployed, weakening their mental and physical health outcomes, adding to tensions in relationships and causing social isolation.
5a	2	As Australians become more efficient producers more output gained from the same or fewer inputs, thereby growing Australia's production possibility frontier or productive capacity. This increases the potential rate of GDP growth. Trade liberalisation also allows local firms to access better equipment, materials, and technology at a lower cost, creating more favourable aggregate supply conditions needed to grow Australia's GDP. Finally, trade liberalisation has grown the size of Australia's export market, turbocharged sales and encouraged firms to boost production levels and expand GDP.
5b	2	By boosting efficiency and slowing domestic inflation, trade liberalisation may help to make local businesses more internationally competitive than otherwise, encouraging expansion, rather than closure. This has helped to reduce structural unemployment and create more jobs. Trade liberalisation, especially FTAs, have created bigger markets for our exports broad, allowing for increased sales and business expansion. This also creates job vacancies and helps to lower unemployment.

Question	Marks	Answer/Exemplary response with <i>marking guide instruction</i>
5c	2	Trade liberalisation as an aggregate supply policy, has had mostly positive effects on Australia's material and non-material living standards. In the longer term, trade liberalisation has encouraged international competitiveness and business expansion, created more jobs and lowered unemployment. This has led to higher real per capita incomes, consumption and material living standards. In addition, by expanding export markets and sales abroad and by lowering structural unemployment over the long-term, trade liberalisation has helped to support various aspects of non-material living standards including greater happiness, reduced social isolation, improved physical and mental health outcomes, and less financial stress and family conflict. However, in the short- to medium-term, both material and non-material living standards could be undermined. This is most likely among those employed in trade-exposed industries that are unable to restructure operations and use resources more efficiently, leading to business closures and structural unemployment. In these industries, lower employment and incomes not only cut consumption and material living standards, but also undermined non-material wellbeing by adding to stress and unhappiness among those who became unemployed, weakening their mental and physical health outcomes, adding to tensions in relationships and causing social isolation.
6	4	The decision by China to impose trade restrictions on some of Australia's exports is likely to have a detrimental impact on Australia's macroeconomic conditions. By losing these key export markets, Australian producers will have less ability to sell their products overseas. This will see a decline in exports and a decline in the level of economic growth. As the as the level of production falls, there is likely to be a decrease in the demand for labour in these industries, which could lead to a higher rate of unemployment. While lower levels of economic can prevent demand pull inflation from occurring, the restrictions placed will likely have an overall have a detrimental impact on the level of macroeconomic activity in Australia.

5.6 ACTIVITIES

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	2	Climate change focuses on the problem of global warming driven by economic activities that involve the release of greenhouse gas emissions into the atmosphere that increase the number and severity of severe weather events.
2	2	Rising levels of global economic activity results in resources being used to the faster rate, which will deplete the availability of these resources in the future. The increasing levels of CO ₂ emissions, which are associated with rising economic activity, are causing climate and rising global temperatures.
3	2	There are many problems caused by climate change which threaten our living standards. For instance, as the world warms this causes the melting of the polar ice caps and rising sea levels, which will displace island and coastal communities, forcing people to relocate at a significant financial and emotional cost. Declining air quality, caused by pollution, will lead to higher level of illness and respiratory problems (such as asthma).
4	2	Market-based environmental policies work through price signals or incentives that are established in various markets for goods and services (including the carbon market). These policies are designed to alter the behaviour of producers and consumers and thereby, reduce emissions of greenhouse gases into the environment, slowing climate change and its negative impact on society's wellbeing.
5	2	Intertemporal efficiency involves an appropriate balance between resources for current consumption as opposed to future use. In the context of environmental policies, it means ensuring our economic activity is sustainable in the long term, and if necessary, introducing policies which will ensure we have an appropriate balance.
6a	2	One market-based environmental policy would be the reintroduction of a carbon tax. The tax is a fee or levy that is imposed on firms and households whose activities (i.e. production and consumption of goods and services) result in

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		carbon emissions and negative externalities or costs to third parties, including the suffering associated with climate change, global warming, and severe weather events. In the short term a carbon tax is likely to decrease the level of aggregate supply as the tax will be an increased cost of production for those businesses which omit carbon during the production process. However, in the long term, as businesses alter their production methods away from carbon this will lead to an increase in intertemporal efficiency and lower costs of production as businesses turn towards other forms of production which do not attract the tax. This will boost the level of aggregate supply.
6b	2	One market-based environmental policy would be the reintroduction of a carbon tax. The carbon tax will aid intertemporal efficiency as producers will alter their production methods in order to avoid paying the tax. This will the level of CO₂ emissions and the impact of climate change, which will help ensure we have more resources available in the future which is beneficial to intertemporal efficiency.
6c	4	Carbon tax: In the short term a carbon tax is likely to have a detrimental impact on living standards. As the cost of production rises due to the companies have to pay the tax, the price of goods and services will increase. This will reduce peoples access to such products an decrease material living standards. The restructuring of industries to adjust for the tax and changing production methods may result in structural unemployment, which further reduces material living standards and also that quality of life for those who lose their job hence lower non material living standards. However, in the long term as businesses adjusted production methods they will move towards lower cost methods of production, which will reduce the cost of goods and services and help improve material living standards. Importantly the reduction of CO₂ emissions will help to reduce levels of pollution and reduce the level the impact of climate change which will help improve our level of environmental sustainability and the quality of our environment, which aids nonmaterial living standards.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
7	5	Students will have a variety of answers and perspectives. To answer this question, students will need to look at the reason for and against the use of effective market-based policies. Students will need to: • look at the impact of the climate crisis on living standards • the impact of an environmental policy • at least one weakness of using the policy • use their information to come to a conclusion on the use of the policy.

5.7 ACTIVITIES

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
1	2	Strengths of using aggregate supply policies to achieve the government's key domestic macroeconomic goals and improve living standards: - Aggregate supply policies can help to solve structural problems that aggregate demand policies can't fix — using supply-side measures to increase efficiency in the use of resources can help slow cost inflation; supply-side measures can also help to make producers more willing and able to lift output, contributing to sustainable economic growth; in the long term, assisting producers to be more efficient can encourage new firms to start up, helping to lower structural unemployment. - Aggregate supply policies work in a complementary way with aggregate demand policies — aggregate supply policies can help reduce long-term structural problems, while aggregate demand policies can help stabilise the level of spending and domestic economic activity in the short-term. While aggregate demand policies are needed to steady growth in expenditure, aggregate supply policies actually contribute towards growth in GDP. - Aggregate supply policies often face fewer conflicts or trade-offs when used to pursue government economic goals — aggregate supply policies can slow inflation without slowing growth or causing a rise in unemployment, and can also boost sustainable levels of growth and employment without adding to inflationary pressures. - Aggregate supply policies can also have beneficial demand side-effects — policies such as investment in infrastructure, spending on education and payment of subsidies can simultaneously strengthen aggregate demand, helping if the level of domestic economic activity is weak.
2	2	Weaknesses of using aggregate supply policies to pursue the government's key domestic macroeconomic goals and improve living standards: Long implementation and impact time lags reduce their usefulness in the short term — policies such investment in infrastructure, labour market reforms and immigration can take a long time to implement, and to have an impact.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		- On its own, the increase in productive capacity as a result of aggregate supply policies is not enough — increasing productive capacity does not guarantee an increase in national production and jobs unless matched by increases in aggregate demand. - Some of the assumptions behind the operation of aggregate supply policies may not apply in practice — assumptions such as a belief that making welfare harder to receive will get more people into work does not take into account the problem of structural unemployment; a belief that tax cuts will make people work harder may not happen in reality as some may simply reduce their hours to take more leisure time; lower taxes also reduce government revenue, limiting government outlays and leading to a reduction in aggregate demand. - Aggregate supply policies often face political constraints — potentially unpopular supply-side policies such as welfare cuts and labour market reforms may not pass both houses of parliament. - Conflict with other goals in the short-term — aggregate supply-side policies such as labour market reforms may lead to structural unemployment, while cuts to welfare may lead to a decline in aggregate demand, leading to a reduction in equity and living standards. - Some aggregate supply policies are likely to undermine aspects of non-material living standards — too high a level of immigration can lead to environmental and urban congestion problems, while labour market reforms can reduce job security and protection of working conditions. - Financial constraints limit some aggregate supply policies — some aggregate supply policies such as infrastructure investment or spending on education and training may require large budget outlays, particularly in times of budget deficit and low economic growth.
3	6	Immigration policy Strengths include: Immigration has helped offset the negative effects of our ageing population, providing access to more labour resources and potentially allowing the economy to get bigger. It has also increased the supply of skilled labour, helping to sustain economic growth. Immigration also grows the size of the population, increasing the number of consumers, providing an increase in aggregate demand.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		• The inflation rate — the availability of ample skilled labour that comes through immigration can slow wage rises, reducing cost inflation pressures. It has also increased the size of the local market, allowing some firms to benefit from economies of large-scale production. • The rate of unemployment — immigration can both add to and reduce the unemployment rate, depending on the category of immigrant, the time period considered, and whether we are looking at aggregate supply factors or aggregate demand factors. Immigrants contribute to aggregate supply by increasing the size and skills of the labour force. This can contribute to unemployment in the short to medium term but ultimately aggregate demand rises to absorb this additional supply of labour in the longer term. • Immigration has contributed to rising GDP and increased average incomes, but not by a huge amount. The Productivity Commission has calculated that rising immigration between 2014 and 2060 will only increase per capita GDP by 5 per cent more than would have been the case with zero net immigration. Increasing the number of younger skilled migrants can increase government revenue as they become taxpayers, increasing the capacity of government to provide welfare and services to greater numbers of the population. In relation to non-material living standards, immigration has produced a more vibrant multicultural society. Weaknesses include: • Immigration usually makes those arriving better off materially, but some recent research by the Productivity Commission suggests that it does little for those already here in Australia. For instance, in the next few decades, immigration is projected to raise average material living standards by only 5 per cent (indicated by the real increase in GDP or incomes per head), and it leads to higher unemployment rates and lower participation for some groups. In addition, it erodes housing affordability for ordinary families. Some would say that the economic case for immigration is surprisingly weak. • Unless immigration rates keep on rising to dramatically swell the growth in our population, some critics say that it is nonsense to argue that high levels of immigration can provide a permanent solution to the problems caused by Australia's ageing population. • Immigration undermines some aspects of non-material living standards. For instance, it accelerates our environmental problems and resource depletion, adds to Australia's greenhouse gas emissions, weakens social

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		cohesion (especially for those who have poor labour market outcomes), worsens traffic congestion and overcrowding, and reduces the amount of leisure time left to spend with families. • Immigration is likely to add to unemployment, especially among our young people. Unions and some others believe immigrants take jobs from locals, especially with the large number of arrivals on 457 visas, a system that is sometimes abused. In addition, it may discourage locals from investing in higher skills since these jobs are sometimes taken by immigrants. Furthermore, some streams of immigrants (family and humanitarian and women) have higher unemployment rates and poorer labour market and integration outcomes. • Currently, some of the potential productivity gains are not realised due to our failure to adequately recognise overseas education and training qualifications. This causes some immigrant workers to be overqualified for their jobs. • Income remittances back to their home country by immigrants can slow their addition to domestic demand, and there is a higher propensity to import goods and services. • Immigration policy may worsen the problem of the 'brain drain' Indeed, over 30 000 qualified individuals a year leave Australia in search of better employment opportunities and higher incomes. In addition, our immigration policy often drains lower income countries of talented individuals who could have made a huge economic contribution in their home country. • As noted by the Productivity Commission in its 2015 draft report, immigration policy could be made more effective if it was based on better research data that analyse its economic, social and environmental impacts. Tax reforms Strengths include: • Lower rates of personal income tax increase disposable incomes and might help to slow demands for higher wages. This reduces cost pressures. In addition, lower rates can act as an incentive to work even harder and gain new skills, thereby lifting labour productivity, again slowing cost inflation.

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		• Lower company tax rates allow firms to gain stronger after-tax profits. They can sell more competitively at a lower price. Furthermore, with better profits, firms are better able to afford new technology, boosting their technical efficiency and suppressing cost inflation pressures. • Lower tariffs promote specialisation in areas of comparative cost advantage. This enhances allocative efficiency, reduces opportunity costs and eases cost inflation pressures. • Lower marginal rates of personal income tax can strengthen incentives to work and get a job (assuming these are available), lowering voluntary unemployment. Importantly too, lower rates may lift worker productivity, slow business costs and make local firms more competitive at home and abroad. This can reduce the number of business closures, encourage expansion and cut structural unemployment. • A reduction in the company tax rate for small business can improve after-tax profits, reduce company closures by making local firms more internationally competitive, encourage investment and expansion, and cut structural unemployment. • By promoting lower cost inflation, tax reform has helped to grow the purchasing power of incomes, consumption and material living standards. • Tax reform has probably strengthened efficiency and our potential GDP per capita. In turn, this should lead to higher real incomes and consumption per head and hence material living standards. It has perhaps also helped to offset the negative effects of an ageing population on the rate of income growth. • In helping to keep structural unemployment lower through greater efficiency and competitiveness, tax reform has generated higher real disposable incomes for individuals (because earnings from paid work have been higher than welfare benefits), improving our material wellbeing. In addition, lower unemployment is beneficial to the general happiness and health of families, and potentially may have helped to keep crime rates lower. This strengthens non-material living standards. Weaknesses include: • The evidence that lower rates of personal income tax boost efficiency and grow our productive capacity might be surprisingly weak. In fact, some economists claim the opposite: higher tax rates will create an increased incentive and necessity to work even harder in order to get ahead and have higher incomes, especially if over-generous

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		welfare is not an option. Lower PAYG rates might simply allow middle- and upper-income earners to use their lower tax rate to enjoy more leisure time without adding to the availability of labour resources or productive capacity. • If generally lower tax rates do not significantly boost efficiency and productive capacity, the danger is that there may be no addition to real incomes. All that might happen is that tax cuts will lead to structural budget deficits. In addition, by reducing budget receipts, governments will not have sufficient resources to maintain the quality and affordability of public goods and services, a problem that we are now seeing in Australia. It could become a race to the bottom for the public sector (jeopardising the provision of infrastructure, education, health, transport, communications and housing), eroding future economic growth and living standards. To help minimise this risk, tax reforms should only reduce rates for those taxes that clearly deter effort and the growth of capacity, while generating adequate finance to strengthen the sustainability of the budget. • For some, the main weakness of recent tax reform is that the Australian government has not gone far enough to see the full benefits of lower taxes. As shown in figure 5.12, despite reductions, Australia's company tax rates are still well above rates overseas. Notice for example that the reduction in Australia's corporate tax rate to 30 per cent for large firms (and 28.5 per cent for small businesses in 2015–16 and perhaps 27.5 per cent for small to medium-sized businesses in 2016–17) still leaves our rate well above the OECD average of 24.9 per cent, and well above that for Asian countries where it is just 21.91 per cent. This places Australia at a distinct competitive disadvantage in trade and investment, and discourages the growth of new firms and aggregate supply. • Other commentators point to Australia's over-reliance on <i>direct</i> income taxes that discourage the growth of investment and efficiency, and our under-reliance on <i>indirect</i> taxes on goods and services that encourage consumption. They feel there should be a more effective tax mix. Figure 5.13 compares the relative importance of company tax as a source of government revenue, as opposed to indirect tax, in selected countries. • Another weakness of Australia's tax reform is the huge political constraint or obstacle faced by governments who lack the numbers in the upper house or Senate sufficient to pass the necessary legislation. As a result, difficult reforms have been deferred or abandoned. • Tax reform involving lower tax rates to increase efficiency is seen by some as conflicting with the government's pursuit of an equitable distribution of income. To them, lower tax rates on companies, superannuation and

Question	LO Marks	Answer/Exemplary response with <i>marking guide instruction</i>
		capital gains mostly help the wealthy, and the supply-side idea that benefits will eventually ‘trickle down’ to those on lower incomes only allows the rich to become even better off.