

VCE Psychology Units 1&2

Written Examination

Suggested Solutions

SECTION A – MULTIPLE-CHOICE QUESTIONS

1	☒ A	☐ B	☐ C	☐ D
2	☐ A	☐ B	☐ C	☒ D
3	☒ A	☐ B	☐ C	☐ D
4	☐ A	☐ B	☒ C	☐ D
5	☒ A	☐ B	☐ C	☐ D
6	☐ A	☐ B	☒ C	☐ D
7	☐ A	☐ B	☐ C	☒ D
8	☐ A	☐ B	☐ C	☒ D
9	☐ A	☐ B	☒ C	☐ D
10	☐ A	☐ B	☒ C	☐ D
11	☐ A	☒ B	☐ C	☐ D
12	☐ A	☒ B	☐ C	☐ D
13	☒ A	☐ B	☐ C	☐ D
14	☒ A	☐ B	☐ C	☐ D
15	☐ A	☐ B	☐ C	☒ D
16	☐ A	☐ B	☐ C	☒ D
17	☐ A	☐ B	☒ C	☐ D
18	☐ A	☒ B	☐ C	☐ D
19	☐ A	☐ B	☐ C	☒ D
20	☐ A	☐ B	☒ C	☐ D
21	☒ A	☐ B	☐ C	☐ D
22	☒ A	☐ B	☐ C	☐ D
23	☐ A	☐ B	☐ C	☒ D
24	☐ A	☒ B	☐ C	☐ D
25	☐ A	☒ B	☐ C	☐ D
26	☐ A	☐ B	☒ C	☐ D
27	☒ A	☐ B	☐ C	☐ D
28	☐ A	☐ B	☐ C	☒ D
29	☐ A	☒ B	☐ C	☐ D
30	☐ A	☒ B	☐ C	☐ D
31	☐ A	☒ B	☐ C	☐ D
32	☐ A	☐ B	☒ C	☐ D
33	☐ A	☐ B	☒ C	☐ D
34	☐ A	☐ B	☒ C	☐ D
35	☐ A	☒ B	☐ C	☐ D
36	☐ A	☒ B	☐ C	☐ D
37	☐ A	☒ B	☐ C	☐ D
38	☐ A	☐ B	☐ C	☒ D
39	☐ A	☒ B	☐ C	☐ D
40	☐ A	☐ B	☐ C	☒ D
41	☐ A	☐ B	☒ C	☐ D
42	☐ A	☐ B	☒ C	☐ D
43	☐ A	☐ B	☒ C	☐ D
44	☐ A	☒ B	☐ C	☐ D
45	☐ A	☒ B	☐ C	☐ D
46	☐ A	☐ B	☐ C	☒ D
47	☒ A	☐ B	☐ C	☐ D
48	☐ A	☐ B	☒ C	☐ D
49	☐ A	☐ B	☐ C	☒ D
50	☒ A	☐ B	☐ C	☐ D

Question 1 A

A is correct. Descartes believed that the mind was a non-physical, spiritual thing and that the body was a physical structure. According to his theory, the mind and body were able to come into contact with each other through the pineal gland, located deep within the central part of the brain. This connection facilitated the interaction of the mind and the brain so that they could influence each other. **B** and **C** are incorrect. Descartes's theory was in direct contrast to theories of the ancient Greeks, who believed that the mind and body were separate things. They also believed that the mind was able to control the body, but the body could not influence the mind. **D** is incorrect. The pituitary gland's main role is to secrete hormones. It does not play any role in connecting the mind and body as described by Descartes.

Question 2 D

D is correct. Galen observed changes in the behaviour of gladiators following head injuries, and thus took the 'brain' side of the debate. **A** is incorrect. The Ancient Egyptians believed that mental processes were held in the heart and so discarded the brain when they entombed the pharaohs. **B** and **C** are incorrect. Empedocles and Aristotle also took the 'heart' side of the debate.

Question 3 A

A is correct. MRI gives clear, coloured, highly detailed images so that minor changes in the brain may be detected. **B** is incorrect. fMRI, or functional magnetic resonance imaging, is a functional technique used to scan activity within the brain. **C** is incorrect. CT scans only produce black-and-white images and, as they rely on X-ray technologies, the image resolution is not as good as that produced by the MRI. **D** is incorrect. X-rays are used for taking images of bones, not soft tissues. The CT scan and MRI both take static images, which is required in this scenario.

Question 4 C

C is correct. The somatic nervous system is active when Marcus kicks the football. This branch sends messages/information via motor neurons to the skeletal muscles. **A** is incorrect. The autonomic nervous system is not involved in voluntary (conscious) responses, such as kicking. **B** and **D** are incorrect. The sympathetic and parasympathetic nervous systems are not consciously controlled.

Question 5 A

A is correct. Skeletal muscle is under the voluntary control of the brain. **B**, **C** and **D** are incorrect. Smooth, cardiac and visceral muscle are not under the voluntary control of the brain but are regulated autonomously (under control of the autonomic nervous system).

Question 6 C

C is correct. An increased release of glucose from the liver provides the muscles with the required nutrients to allow respiration to occur to release energy. **A** is incorrect. When the body is faced with a threat, the sympathetic nervous system causes the pupils of the eyes to dilate to let in maximal amounts of light for visual accuracy. **B** and **D** are incorrect. It also increases the heart rate and breathing rate to supply sufficient oxygen to the cells.

Question 7 D

D is correct. Kai has sustained damage to his visual cortex, which is located in the occipital lobe. **A**, **B** and **C** are incorrect. The frontal, parietal and temporal lobes have different types of cortices and association areas that are not involved in vision.

Question 8 D

D is correct. Within a neuron, the dendrites receive incoming neural information (messages or impulses), and the soma (cell body) integrates this information so that a neural impulse is created and travels the length of the axon. The axon is covered with a fatty insulating material known as myelin. When the neural impulse reaches the terminal branches, the synaptic vesicles within this area release neurotransmitters into the synaptic gap (cleft), which is part of the synapse.

Question 9 C

C is correct. Motor neurons are also known as efferent neurons and they transmit neural impulses outward from the CNS to the PNS. **A** is incorrect. Sensory neurons are also known as afferent neurons, as they transmit information from the PNS to the CNS. **B** and **D** are incorrect. Interneurons, also known as association neurons, are located within the CNS and connect neurons.

Question 10 C

C is correct. The hindbrain consists of the cerebellum, pons and medulla. **A** is incorrect. The midbrain contains the reticular formation. **B** and **D** are incorrect. The forebrain contains the cerebrum, thalamus, hypothalamus and corpus callosum.

Question 11 B

B is correct. The left hemisphere of the brain specialises in logic, language and mathematical processes. **A**, **C** and **D** are incorrect. The right hemisphere of the brain specialises in abstract thinking, appreciation of art and music, and creativity.

Question 12 B

B is correct. During adolescence, the last area of the brain to develop is the prefrontal cortex. It is in this area that higher-order thinking processes such as problem solving, planning and decision making occur. A lag in development in this area may explain the higher risk-taking behaviour of adolescents. **A** is incorrect. The prefrontal cortex is located within the frontal lobe, but the frontal lobe also has other functions, such as the initiation of motor movements. **C** is incorrect. The parietal lobe is primarily responsible for sensations of touch (somatosensory cortex). **D** is incorrect. The auditory cortex processes sound (hearing).

Question 13 A

A is correct. During adaptive plasticity, the brain reorganises its neural structure through the processes of rerouting and sprouting neurons. Rerouting is the process by which an undamaged neuron that has lost its original connections in a damaged area seeks to connect with undamaged neurons. Sprouting is the process by which new dendrites are created to enable new connections. **B** and **D** are incorrect. Synaptic pruning (the elimination of underused synapses) and synaptogenesis (the creation of new synapses) are part of developmental plasticity but are not the most important processes in adaptive plasticity. **C** is incorrect. Myelination is the process of creating a myelin sheath to coat the axon and is not involved in neural plasticity.

Question 14 A

A is correct. Social development includes the development of the skills required to effectively interact and communicate with other people. **B** is incorrect. Cognitive development refers to changes in the thinking processes of individuals as they develop. **C** is incorrect. Emotional development refers to the changing abilities of individuals to control, express and identify emotions in other people. **D** is incorrect. Physiological development refers to the biological changes that occur as people grow.

Question 15 D

D is correct. Parkinson's disease is a progressive neurodegenerative disease. It occurs when the neurons in the substantia nigra, which is located in the midbrain, gradually deteriorate. **A**, **B** and **C** are incorrect. Parkinson's disease does not cause degeneration of the neurons in the cerebellum, which is located within the hindbrain, or of the neurons within the frontal lobe.

Question 16 D

D is correct. Low levels of the neurotransmitter dopamine are detected in individuals with Parkinson's disease. **A**, **B** and **C** are incorrect. Adrenaline is involved in the fight-flight-freeze response, endorphins assist in relieving pain and stress, and glutamate is involved in learning and memory.

Question 17 C

C is correct. The least invasive, most widely used treatment for Parkinson's disease is medication. **A** is incorrect. Deep brain stimulation is a useful treatment but is much more invasive than medication. **B** and **D** are incorrect. Deep tissue massage does not provide control of the symptoms, and radiation therapy is not a viable treatment option for Parkinson's disease.

Question 18 B

B is correct. During middle childhood (primary school years), hard work (industry) is praised and rewarded. If a child feels inadequate in comparison to their peers, they can develop feelings of inadequacy. **A** is incorrect. Late infancy is when the 'autonomy versus shame and doubt' stage occurs. **C** is incorrect. Adolescence is when the 'identity versus role confusion' stage occurs. **D** is incorrect. Late adulthood is when the 'integrity versus despair' stage occurs.

Question 19 D

D is correct. Sensitive periods of development have gradual onsets and closures for 'windows' (opportunities) of learning. Learning is most successful during this period, but it still may occur at a later age; however, the process may be slower and not as successful. **A** and **B** are incorrect. Critical periods, not sensitive periods, have a definite and abrupt beginning and end; they refer to periods of time during an individual's development when that individual is most vulnerable to being deprived of environmental stimuli. **C** is incorrect. Sensitive periods are shorter for physiological developments but longer for psychological developments.

Question 20 C

C is correct. When Patty's father returns to the observation room and is ignored, the type of attachment Patty is showing is insecure avoidant attachment. **A** and **D** are incorrect. If the attachment type were secure, Patty would display happiness and excitement when her father returned to the room. **B** is incorrect. If the attachment type were insecure resistant attachment, Patty would reach out for her father upon his return but would then squirm to be released.

Question 21 A

A is correct. When the caregiver returns to the room, Khalil is excited and seeks to be close to the caregiver because he is securely attached to the caregiver. **B**, **C** and **D** are incorrect. Infants that do not display these behaviours would not be securely attached.

Question 22 A

A is correct. Piaget developed the theory of cognitive development to explain how individuals develop cognitively. He used the word 'schema' to identify an idea or concept held by an individual. He explained that individuals continuously change their thinking to adapt to the changing world (adaptation). There are two processes involved in adaptation: assimilation and accommodation. Assimilation occurs when a new concept is taken and made to fit into an existing schema. Savesh's new bike has wheels and he can ride it so he concludes that it must be a scooter, which he knows from experience is a wheeled object that he can ride. If Savesh were using accommodation, he would have changed his existing idea about wheeled toys to fit the new information of the bike.

Question 23 D

D is correct. According to Piaget, children enter the formal operational stage in their cognitive development from around 12 years of age. It is in this stage that children develop the ability to be able to think abstractly. **A**, **B** and **C** are incorrect. In the sensorimotor (0–2 years), pre-operational (2–7 years) and concrete operational (7–11 years) stages, they are still thinking in a more concrete manner.

Question 24 B

B is correct. Internal factors are often biological and thus the genetics of an individual are an internal factor. **A**, **C** and **D** are incorrect. Social factors such as number of family members, position held in the workplace, and level of education are external factors.

Question 25 B

B is correct. As Dr Asher ran the experiments and collected the data herself, the data would be considered primary, or first-hand, data. **A** is incorrect. The experiments resulted in numerical test scores being recorded, which means the data was quantitative. **C** and **D** are incorrect. Secondary data, or second-hand data, is collected by another researcher, and qualitative data is descriptive, using words and not numbers.

Question 26 C

C is correct. Sensation is the process by which raw sensory information is detected by the senses. **A** is incorrect. The process is passive. **B** is incorrect. The information does not change form until transduction occurs. **D** is incorrect. Sensation is an intake of raw energy which does not influence the adaptation of an organism.

Question 27 A

A is correct. Light enters the eye through the transparent, thin coating at the front of the eye called the cornea. It then passes through the central space in the iris called the pupil. The light continues to travel through the clear lens, which acts to focus the light rays on the light-sensitive retina at the back of the eye. **B**, **C** and **D** are incorrect. These options do not list the structures in order from the exterior of the eye to the back of the interior of the eye.

Question 28 D

D is correct. The photoreceptors (cones) are stimulated when light levels intensify and become brighter. They also detect details of objects and scenes. **C** is incorrect. Cones do not detect black and white; they enable colour to be seen. **A** and **B** are incorrect. Cones are not stimulated at lower light intensities.

Question 29 B

B is correct. Stratified sampling ensures that each year level (group or stratum) is represented in the sample. **A** is incorrect. Convenience sampling is a method of selecting participants that are readily available and it does not guarantee that each year level will be represented in the sample. **C** is incorrect. Random sampling would mean that every student in the school has a chance of being selected to take part in the study. **D** is incorrect. Allocation refers to the assignment of participants to the experimental or control groups.

Question 30 B

B is correct. Texture gradient is a depth perception cue where the texture of a surface, in this case cobblestones, diminishes considerably in the distance. **A** is incorrect. Linear perspective is a monocular depth cue that creates the illusion of distance through the convergence of parallel lines to a single point. **C** is incorrect. Interposition is a monocular depth cue that refers to the overlapping of one object with another object that is more fully in view so it is perceived to be closer. **D** is incorrect. Relative size is a monocular cue that refers to objects in the distance appearing to be smaller in size than objects that are closer.

Question 31 B

B is correct. To be able to see the details on the coin clearly at a close distance, Oakley's eyes have turned inwards using the principle of convergence. **A** is incorrect. Retinal disparity is the difference between the two separate images projected on the two retinas. **C** is incorrect. Convergence is a monocular cue that involves the lens altering its shape and thickness to change the focal length within the eye. **D** is incorrect. Pictorial cues include monocular depth cues, which are not used in this scenario.

Question 32 C

C is correct. The number '40' is the figure and stands out clearly from the background, enabling Jennifer to easily read the speed limit. **A** is incorrect. Similarity occurs when things that appear to be similar to each other are grouped together. **B** is incorrect. Proximity groups things that are close together in contrast to objects that are spaced farther apart. **D** is incorrect. Closure closes the gaps in figures or objects so that they are perceived as a whole.

Question 33 C

C is correct. Many foods that have become spoiled or are toxic are perceived to have a bitter or sour taste. This is an evolutionary development that protects against eating harmful food. **A**, **B** and **D** are incorrect. Humans find salty and sweet flavours to be enjoyable. This evolutionary development was beneficial, as salty and sweet flavours are common in foods that provide good calorie sources to provide energy for survival.

Question 34 C

C is correct. Alison was motivated by hunger to misinterpret the sign when she first read it. **A** is incorrect. Context refers to the setting in which a perception is made. **B** is incorrect. Alison's emotional state is not relevant to the situation. **D** is incorrect. It is not known from the information given whether Zarah and Alison have had previous experience with the road sign.

Question 35 B

B is correct. The dissolved chemicals in food are referred to as tastants. **A** is incorrect. Papillae are the small bumps on the tongue that may contain taste buds. **C** is incorrect. The taste buds are the taste sensory organs. **D** is incorrect. Gustatory hairs are fine hairs that extend from the taste buds into the pores of the tongue.

Question 36 B

B is correct. Ervin's behaviour demonstrated a self-serving bias, as he attributed his poor mark in the test to the situation, in this case the teacher, and not to himself. **A** is incorrect. Ervin's behaviour did not demonstrate an actor–observer bias, because Ervin did not blame Harvey's poor mark on personal factors, such as Harvey being lazy. **C** is incorrect. Fundamental attribution error was not evident in this scenario, as Ervin did not overestimate the influence of personal factors and underestimate the impact of situational factors on Harvey's behaviour. **D** is incorrect. The teacher's behaviours were not interpreted as hostile in this scenario.

Question 37 B

B is correct. The independent variable is the variable that is deliberately being manipulated by the researcher – in this case, the temperature of the office. The dependent variable is influenced by the independent variable – in this case, the level of productivity. **A**, **C** and **D** are incorrect. The level of productivity is the dependent variable, the number of reports is an operationalised dependent variable, the people in the office are the participants and the temperature in the office is the independent variable.

Question 38 D

D is correct. The researcher must have disclosed the names of the participants and their results to the CEO of the company, which breaches the ethics of confidentiality. **A** is incorrect. The researcher obtained informed consent in the form of the signed letters. **B** is incorrect. The temperatures that were tested were unlikely to have compromised the health of the participants. **C** is incorrect. The participants were informed that they were able to leave the experiment if they felt unwell or unsafe.

Question 39 B

B is correct. The four students are interacting and influencing each other as well as working together to achieve a common goal. **A** is incorrect. The number of people in the cheer squad is too large for the members to be able to successfully interact with each other. **C** is incorrect. Passengers on a bus would not be sharing a common goal or interacting with each other. **D** is incorrect. The people bidding at the auction are not interacting with each other.

Question 40 D

D is correct. The personal trainer has expert knowledge in the fields of fitness and nutrition and will be able to provide Leora with reliable information and guidance. **A** is incorrect. Coercive power is focused on giving out negative consequences in response to certain behaviours, which is not evidenced in this scenario. **B** is incorrect. Leora is a new member of this gym and has just started to work with the personal trainer, so it is unlikely that she is attempting to identify with the trainer or be like them. **C** is incorrect. The trainer is not distributing rewards as would occur with reward powers.

Question 41 C

C is correct. This type of covert bullying is often indirect and social in nature. **A** is incorrect. No physical contact is being made. **B** is incorrect. Brian's bullying behaviour is not in the form of name calling or insults spoken to Shae. **D** is incorrect. The bullying behaviour is not online in this scenario.

Question 42 C

C is correct. Quentin attending the opera is the behavioural part of his attitude, as it is an action that he undertakes. **A**, **B** and **D** are incorrect. Quentin's understanding, knowledge and thoughts are part of the cognitive component of his attitude, as they refer to the way that he thinks about the opera.

Question 43 C

C is correct. Paul had formed an opinion that, because this customer was a doctor, she must be wealthy. This was based on the assumption that all doctors are wealthy. **A** and **B** are incorrect. Paul did not hold a negative attitude towards the customer and so was not prejudiced towards or discriminatory against her. **D** is incorrect. It is not known from the information given whether Paul perceived the customer to be in the same in-group as himself; that is, whether they belonged to the same social or financial group.

Question 44 B

B is correct. Zimbardo used convenience sampling. He placed an advertisement in a newspaper and the participants who replied and were readily available were selected. No attempt was made to ensure the sample was representative of the target population. **A** is incorrect. If Zimbardo used random sampling, every person in the target population would have had the chance to be selected as a participant. **C** and **D** are incorrect. These sampling methods require that the target population be divided into groups. Participants from each group would then be selected using a technique that allows each person within the group to have an equal chance to be selected as a participant. Zimbardo did not seek to divide his target population into smaller groups.

Question 45 B

B is correct. Some participants experienced real pain and suffering during the experiment, breaching the no-harm principle. **A** is incorrect. The experiment could not have continued to the end of the scheduled time period without more harm being done to participants and thus had to be terminated. **C** is incorrect. All data from the experiment was encoded to uphold confidentiality. **D** is incorrect. Running the experiment in a real prison instead of a mock-prison environment would have prevented other variables from being controlled.

Question 46 D

D is correct. When other teachers refused to obey the authority figure's commands, the level of obedience among the participants dropped considerably. **A** is incorrect. The close proximity of the authority figure increased the obedience levels of participants. **B** is incorrect. Obedience would remain high due to group pressure from the other teachers who followed commands of the authority figure. **C** is incorrect. The authority figure was replaced by another legitimate authority figure, ensuring that the obedience levels of participants remained high.

Question 47 A

A is correct. Enzo has relied on the rest of his group to contribute more work than himself in order to achieve a high grade. **B** is incorrect. Enzo and the rest of his group did not change their behaviours for an authority figure. **C** is incorrect. No person in this scenario has changed their behaviours in order to fit in with the social requirements of the group. **D** is incorrect. A loss of personal identity within a group situation did not occur.

Question 48 C

C is correct. The term 'affective' refers to the emotional component of an attitude. There is no emotional component specified in Juanita's attitude in this scenario. **A** is incorrect. The cognitive component of Juanita's attitude refers to how she thinks about the current situation. Juanita has considered her study options and believes that studying Psychology at university will benefit her future career. **B** is incorrect. In this scenario, Juanita acts on her beliefs that studying Psychology will assist her with her planned future career as a guidance counsellor, indicating that a behavioural component is present in her attitude. **D** is incorrect. Although Juanita's behaviour has purpose, 'purposeful' is not a component of the tri-component model of attitudes.

Question 49 D

D is correct. Jamie was discriminated against because of his young age. **A** and **B** are incorrect. Jamie was not being discriminated against because of his sex or race. **C** incorrect. There is no indication of Jamie not being given the job because he is in a different social class.

Question 50 A

A is correct. It is likely that the protesters experienced a loss of their individuality and, through their feeling of anonymity within the group, behaved in anti-social manner. **B** is incorrect. It is highly unlikely that all members of the group protest would have been diagnosed with mental illnesses. **C** is incorrect. If social loafing had dominated, the protester's active behaviours would have declined. **D** is incorrect. It is not known from the information given if there was an authority figure present.

SECTION B

Question 1 (4 marks)

a. the sympathetic nervous system 1 mark

Any one of:

- increased heart rate
- pupil dilation
- dry mouth (reduced saliva production)
- increased rate of breathing
- bronchodilation
- release of glycogen in the muscles
- relaxation of the muscles at the neck of the bladder
- reduced digestive processes
- release of glucose from the liver

1 mark

b. the parasympathetic nervous system 1 mark

Any one of:

- decreased heart rate
- pupil constriction
- increased saliva production
- decreased rate of breathing
- bronchiole constriction
- increased digestive processes

1 mark

Question 2 (5 marks)

a. *For example, any one of the following biological changes:*

- reduced level of motor activity
- limited facial expressions
- limited eye movements
- possible reappearance of infantile reflexes

1 mark

For example, any one of the following psychological changes:

- ongoing apathy
- lack of emotional responsiveness
- aggressive behaviour
- impulsive behaviour
- limited goal-directed behaviour
- reduced creative thinking
- reduced problem-solving skills
- changes in personality

1 mark

For example, any one of the following social changes:

- poor interpersonal relationships
- reduced social support
- socially inappropriate behaviour

1 mark

b. A case study is an intensive, in-depth study of an individual or a group of people.

1 mark

c. *Any one of:*

- The sample size of the study may be too small.
- It may not be possible to draw a conclusion from the study.
- It may not be possible to make a generalisation based on the study.
- The results of the study may be vulnerable to experimenter bias.

1 mark

Question 3 (3 marks)

Alec shows secure attachment.

1 mark

Any two of:

- Alec may have an easy temperament, which would help his mother to look after him more easily, strengthening the relationship.
- Kristina may have been sensitive and responsive to Alec's needs as an infant, which means Alec can be confident that his needs will be met by his mother, helping to strengthen the bond.
- The family may not have any money problems, which would reduce stress within the family and allow for Kristina to spend more time with Alec.
- Kristina and the other family members may be well-educated, which means they would be able to cope better with the demands of a new infant.
- The cultural background of the family may be one that encourages close relationships. Different cultures encourage different degrees of closeness and different types of responses between caregivers and infants.

2 marks

Question 4 (8 marks)

- a. The frontal lobe within the left hemisphere.

1 mark

1 mark

- b. Broca's area

1 mark

Broca's area is responsible for coordinating the facial areas and vocal cords to produce fluent speech. As Daiki was speaking in short sentences without fluency, it would suggest that his Broca's area has been affected.

1 mark

Note: Response must refer to Daiki to be awarded full marks.

- c. Rerouting: Rerouting occurs when undamaged neurons search for more undamaged neurons to form more connections around the damaged area in the brain.

2 marks

Sprouting: Sprouting occurs when undamaged neurons create more dendritic branches, enabling them to form more new connections with neurons that are in the process of rerouting.

2 marks

1 mark for each identification of the correct process.

1 mark for each appropriate description.

Question 5 (4 marks)

- a. Regardless of whether it was the wire mother or the cloth mother that provided milk for the infant rhesus monkey, the monkey spent most of its time with the cloth mother.

1 mark

- b. Harlow concluded that the contact with the soft, comforting cloth was more important to the infant rhesus monkeys than the provision of nourishment.

1 mark

Thus, the comfort from contact with the mother is important in forming attachment.

1 mark

- c. Harlow generalised from his study that human infants require contact comfort for the development of infant-caregiver (mother) attachment.

1 mark

Question 6 (4 marks)

a. Egocentrism is the tendency for a child to view the world from only their perspective. That is, they are unable to view the world from another person's point of view. 1 mark

b. Jenna could test for egocentrism using a picture card, with a different picture on each side of the card. Jenna could show the children both sides of the card and then hold up the card in front of the children and ask them what she, Jenna, would be able to see. 1 mark

Note: Other appropriate examples such as the Three Mountains Task are acceptable. Students do not need to write the expected results.

c. *For example:*
If the children described the picture that was facing them instead of the picture that was facing Jenna, they would be viewing the world only from their own perspective and thus, would be egocentric. 1 mark

d. The children would be in the pre-operational stage of cognitive development. 1 mark

Question 7 (2 marks)

Nerve: optic nerve 1 mark

Lobe of the brain: occipital lobe 1 mark

Question 8 (3 marks)

Camouflage makes use of the Gestalt principle figure–ground. 1 mark

The contour line between the chameleon and its background, such as the trunk of a tree, would not be obvious due to the chameleon altering the colouration of its skin to match the colour of the tree. 1 mark

Therefore, the chameleon would not stand out as a figure against a contrasting background, enabling it to be camouflaged and not easily seen by predators. 1 mark

Question 9 (4 marks)

The Ames room illusion is based on a room that is trapezium-shaped and longer and higher on one side than the other, so Bethany would need to build a set that replicates these dimensions. 1 mark

In the Ames room illusion, a viewer looks at the room through a peephole so that only monocular cues are used, and the room appears to be rectangular with normal ceiling height. Filming the scene through the camera lens gives a view that is restricted and similar to that of looking through the peephole. 1 mark

When Jeremiah moves from the part of the room where the ceiling-to-floor height is normal, to the other part of the room where the ceiling and floor slope towards each other, he will appear to grow larger in size. 1 mark

Question 10 (2 marks)

Synaesthesia is a perceptual experience in which stimulation of one sense involuntarily produces additional experiences in another sense. 1 mark

The condition does not always involve visual perception as it can occur with hearing and taste perceptions as well. For example, some individuals with synaesthesia experience a certain taste when they hear a particular sound or musical note. Hence, Miguel's definition was incorrect. 1 mark

Question 11 (4 marks)

Internal attribution is when the cause of the behaviour is inferred to be due to personal factors of the individual exhibiting the behaviour, 1 mark

whereas external attribution is when the cause of the behaviour is inferred to be due to situational factors. 1 mark

The scenario contains both kinds of attribution. Neesha's mother has used internal attribution to infer that Neesha has dropped the ball due to her being unwell and therefore having decreased energy levels. 1 mark

Neesha has used external attribution to infer that she dropped the ball due to her teammate Elba not throwing it to her correctly. 1 mark

Question 12 (12 marks)

a. A confederate is an individual who appears to be a participant in an experiment but is actually part of the research team. 1 mark

Confederates were necessary in this experiment in order for deception to be used. Without deception, the results would not have been accurate or realistic. 1 mark

b. size of the group 1 mark

c. level of conformity 1 mark

d. *For example:*

It is predicted that among Australians (population), conformity will increase as the group size (independent variable) increases to four participants but will not increase any further (dependent variable). As the group increases in size past four participants, conformity will not continue to increase.

3 marks

1 mark for the population.

1 mark for the independent variable.

1 mark for the dependent variable.

Note: The direction of the relationship between the independent variable and dependent variable should be clear.

e. stratified sampling 1 mark

f. *For example, any one of:*

- **Factor:** Unanimity

Expected result: When there is complete agreement among the group members as to what the answer is then conformity would increase.

- **Factor:** Informational influence

Expected result: When a member of the group is perceived to have more information or knowledge then conformity would increase.

- **Factor:** Culture

Expected result: Individuals from a collectivist culture would show more conformity than those from an individualistic culture.

2 marks

1 mark for the factor.

1 mark for the expected result.

- g.** Conformity is the tendency of an individual towards their thoughts, feelings or behaviour in ways that align with those of a particular individual or group, 1 mark
whereas obedience involves individuals following the demands of an authority figure.
An authority figure does not need to be present when conformity occurs. 1 mark

Question 13 (5 marks)

- a.** Dean's verbal comments and physics actions were ongoing. 1 mark
Dean appeared to wield more power than Josephine as she was new to the school
and most likely had less social support than Dean, so an imbalance in power existed. 1 mark

- b.** *Any one of:*
• physical bullying
• verbal bullying 1 mark

- c.** *For example, any one of the following physical consequences:*
• fatigue
• disturbed sleep
• loss of appetite
• headaches
• gastrointestinal upsets 1 mark

For example, any one of the following psychological consequences:

- feeling unsafe at school
- feeling disconnected from or not liking school
- feeling lonely or isolated
- low self-esteem
- difficulties concentrating and learning
- anxiety
- depression 1 mark

Question 14 (10 marks)**Diagnosis**

It is likely that Geoff is suffering from the psychotic disorder schizophrenia. Geoff's symptoms have been present and developing for over six months. His behaviours have deviated from his past usual behaviours and have impacted on his daily functioning and his relationships with family and friends.

Symptoms

The symptoms that Geoff has presented can be categorised into positive and negative. Positive symptoms include delusions, hallucinations and disorganised speech, while negative symptoms include a loss of motivation.

- Geoff's belief that he is being specially prepared and trained to become the next Prime Minister of Australia is a delusion of grandeur.
- Geoff's belief that he is being followed by men and that bugs have been planted in his home indicates that he is experiencing delusions of persecution.
- His belief that he is being followed is also an example of visual hallucination.
- The static sounds and voices that Geoff has been hearing at night are examples of auditory hallucinations.
- Geoff's confusing and erratic speech indicates disorganised thinking processes.
- Geoff has displayed loss of motivation through not attending university.

Two-hit hypothesis

The first 'hit' of this hypothesis is that Geoff's great-grandfather displayed unusual behaviours, which may suggest that his great-grandfather suffered from a psychotic illness himself. This indicates that there may be a genetic vulnerability.

The second hit could include Geoff's family environment. His parents frequently fighting and arguing will have contributed to a tense and stressful environment. His parents demonstrate a specific type of communication, known as expressed emotion, which may have been instrumental in triggering the development of Geoff's schizophrenia. The second hit could have also come from the use of marijuana, a drug which induces a state of psychosis. It could have also triggered Geoff's genetic predisposition for schizophrenia.

Both hits must be present according to this theory and they must develop in the order of first hit followed by second hit.

Treatments

Biological: Antipsychotic medications are often used for treating schizophrenia. These medications should be prescribed to Geoff as they will help to control his positive symptoms. There are some side effects, such as nausea and weight gain. These medications will not control all of Geoff's symptoms.

Social: Geoff's family would need to be educated about Geoff's condition and advised as to how they can best support Geoff at home. Geoff could attend a support group through the hospital or an organised community group. It is important that Geoff does not perceive there to be a stigma attached to having schizophrenia, as this could impede his treatment.

10 marks

Note: The question asks for a medical report to be written, which suggests that the response should be written in prose style. The inclusion of subheadings is acceptable. Responses must make specific reference to Geoff and the scenario to be awarded full marks. The response shown here is more detailed than a student would be expected to write. This is so that teachers may advise their students of the range of information that could be included.

Marking guide*Very high (9–10 marks)*

The student has:

- provided a highly detailed explanation of Geoff's diagnosis of schizophrenia, based on a set of criteria;
- provided a highly detailed explanation of schizophrenia as characterised by a loss of/separation from reality. Positive symptoms are described as behaviours that occur in addition to usual behaviours, including delusions, hallucinations and disorganised speech. Negative symptoms are described as a loss of part of Geoff's everyday functioning and a loss of motivation;
- provided a highly detailed explanation of the two-hit hypothesis, with a clearly identified order. The first 'hit' is described as genetic vulnerability (Geoff's inheritance of the genes from his grandfather) and the second 'hit' is described as exposure to an environmental factor (Geoff's stressful family environment or Geoff consuming the psychotropic drug marijuana);
- provided a highly detailed explanation of one biological treatment and one social treatment.

High (7–8 marks)

The student has:

- provided a detailed explanation of Geoff's diagnosis of schizophrenia, based on a set of criteria;
- provided a detailed explanation of schizophrenia as characterised by a loss of/separation from reality. Positive symptoms are described as behaviours that occur in addition to usual behaviours, including delusions, hallucinations and disorganised speech. Negative symptoms are described as a loss of something part of Geoff's everyday functioning and a loss of motivation;
- provided a detailed explanation of the two-hit hypothesis, with a clearly identified order. The first 'hit' is described as genetic vulnerability (Geoff's inheritance of the genes from his grandfather) and the second 'hit' is described as exposure to an environmental factor (Geoff's stressful family environment or Geoff consuming the psychotropic drug marijuana);
- provided a detailed explanation of one biological treatment and one social treatment.

Medium (5–6 marks)

The student has:

- provided a limited explanation of Geoff's diagnosis of schizophrenia, based on a set of criteria;
- provided a limited explanation of schizophrenia as characterised by a loss of/separation from reality. Positive symptoms are described as behaviours that occur in addition to usual behaviours, including delusions, hallucinations and disorganised speech. Negative symptoms are described as a loss of something part of Geoff's everyday functioning and a loss of motivation;
- provided a limited explanation of the two-hit hypothesis, with a clearly identified order. The first 'hit' is described as genetic vulnerability (Geoff's inheritance of the genes from his grandfather) and the second 'hit' is described as exposure to an environmental factor (Geoff's stressful family environment or Geoff consuming the psychotropic drug marijuana);
- provided a limited explanation of one biological treatment and one social treatment.

Low (3–4 marks)

The student has failed to address each of the four criteria (diagnosis, symptoms, explanation of two-hit hypothesis and treatments) in terms of the following:

- provided a limited explanation of Geoff's diagnosis of schizophrenia, based on a set of criteria;
- provided a limited explanation of schizophrenia as characterised by a loss of/separation from reality. Positive symptoms are described as behaviours that occur in addition to usual behaviours, including delusions, hallucinations and disorganised speech. Negative symptoms are described as a loss of something part of Geoff's everyday functioning and a loss of motivation;

- provided a limited explanation of the two-hit hypothesis, with a clearly identified order. The first 'hit' is described as genetic vulnerability (Geoff's inheritance of the genes from his grandfather) and the second 'hit' is described as exposure to an environmental factor (Geoff's stressful family environment or Geoff consuming the psychotropic drug marijuana).
- provided a limited explanation of one biological treatment and one social treatment.

Very low (0–2 marks)

The student has only addressed one or none of the four criteria (diagnosis, symptoms, explanation of two-hit hypothesis and treatments) in terms of the following:

- provided a limited explanation of Geoff's diagnosis of schizophrenia, based on a set of criteria;
- provided a limited explanation of schizophrenia as characterised by a loss of/separation from reality. Positive symptoms are described as behaviours that occur in addition to usual behaviours, including delusions, hallucinations and disorganised speech. Negative symptoms are described as a loss of part of Geoff's everyday functioning and a loss of motivation;
- provided a limited explanation of the two-hit hypothesis, with a clearly identified order. The first 'hit' is described as genetic vulnerability (Geoff's inheritance of the genes from his grandfather) and the second 'hit' is described as exposure to an environmental factor (Geoff's stressful family environment or Geoff consuming the psychotropic drug marijuana);
- provided a limited explanation of one biological treatment and one social treatment.