

2015 Trial Examination

STUDENT NUMBER

Letter

Figures

Words

PSYCHOLOGY

Units 3 & 4 – Written examination

Reading time: 15 minutes

Writing time: 2 hours 30 minutes

QUESTION AND ANSWER BOOK

Structure of book

<i>Section</i>	<i>Section</i>	<i>Number of questions</i>	<i>Number of questions to be answered</i>	<i>Number of marks</i>
A	Multiple Choice	65	65	65
B	Short Answer	15	155	60
C	Research Investigation	3	3	15
				Total 140

- Students are permitted to bring into the examination room: pens, pencils, highlighters, erasers, sharpeners and rulers.
- Students are NOT permitted to bring into the examination room: blank sheets of paper and/or white out liquid/tape.
- No calculator is permitted in this examination.

Materials supplied

- Question and answer book of 27 pages.

Instructions

- Print your name in the space provided at the top of this page.
- All written responses must be in English.

Students are NOT permitted to bring mobile phones and/or any other unauthorised electronic devices into the examination room.

SECTION A - Multiple-choice questions

Instructions for Section A

Answer all questions.

Choose the response that is **correct** or that **best answers** the question.

A correct answer scores 1, an incorrect answer scores 0.

Marks will **not** be deducted for incorrect answers.

No marks will be given if more than one answer is completed for any question.

Question 1

Which of the following factors can be used to indicate if we are in an alcohol induced altered state of consciousness?

- A. High level of awareness, fewer content limitations, poor performance on controlled and automatic processing, perceptual and cognitive distortions.
- B. Decreased level of awareness, fewer content limitations, poor performance on controlled and automatic processing, perceptual and cognitive distortions.
- C. Increased daydreaming, fewer content limitations, poor performance on controlled and automatic processing, perceptual and cognitive distortions.
- D. Fewer content limitations, poor performance on controlled and automatic processing, alcohol consumption, accurate time orientation.

Question 2

Automatic processes require which of the following?

- A. Focused selective attention
- B. Divided attention
- C. Accurate time perception
- D. Increased self-control

Question 3

Which of the following refers to a build up of tau protein within the neuron?

- A. Cortical atrophy
- B. Amyloid Plaques
- C. Neurofibrillary tangles
- D. Neuronal death

Question 4

Monica is daydreaming as she takes a bus ride to the City. What would an EEG reveal?

- A. Beta waves
- B. Theta waves
- C. Alpha waves
- D. All of the above

SECTION A - continued

Use the following information to answer question 5-8

James is observed in a sleep laboratory as he has been having repetitive, horrific nightmares that are causing him great concern.

Question 5

What stage of sleep is James likely to be in whilst he is experiencing these nightmares?

- A. NREM stage 1
- B. NREM stage 2
- C. NREM stage 4
- D. REM

Question 6

When James experiences these nightmares he has an unusual sensation that he is unable to flee the danger as he cannot move his body to run. This phenomenon is a result of?

- A. Rapid eye movement
- B. Muscle cataplexy
- C. Excess delta waves
- D. Sawtooth brainwaves

Question 7

The sensation discussed in question 6 could be measured by using which of the following devices?

- A. EMG
- B. EOG
- C. EEG
- D. ECG

Question 8

Which of the following brainwave patterns is James likely to display when he is having the nightmares?

- A. High amplitude and low frequency
- B. High frequency and low amplitude
- C. Medium frequency and mixed amplitude
- D. A sharp rise and fall in amplitude

Question 9

In a typical 8 hour night's sleep, a normal adult will go through how many sleep cycles on average?

- A. 2
- B. 8
- C. 6
- D. 5

SECTION A - continued
TURN OVER

Question 10

For most people, Wernicke's area is located in the

- A. right frontal lobe.
- B. left frontal lobe.
- C. right temporal lobe.
- D. left temporal lobe.

Question 11

The name of the structure that separates the hemispheres of the brain is called the

- A. corpus callosum.
- B. longitudinal fissure.
- C. cerebral cortex.
- D. cortical lobe.

Question 12

The area of the brain most likely damaged when a person experiences spatial neglect is the

- A. right temporal lobe.
- B. left temporal lobe.
- C. right parietal lobe.
- D. left parietal lobe.

Question 13

The neurons that take information to the Central Nervous System are called

- A. interneurons.
- B. afferent neurons.
- C. motor neurons.
- D. efferent neurons.

Question 14

Lateralisation of brain function refers to

- A. the ability to transfer information between the hemispheres of the cerebral cortex.
- B. the fact that specific areas of the brain are responsible for specific functions.
- C. the fact that verbal functioning occurs in the right hemisphere only.
- D. the notion that certain processes are predominantly carried out in only one hemisphere.

Question 15

Which one of the following nervous systems stimulate the endocrine system in the body?

- A. Somatic
- B. Sympathetic
- C. Parasympathetic
- D. Cerebral

SECTION A - continued

Use the following information to answer questions 16 and 17

Cheryl finds it difficult to speak clearly and often mispronounces words. She often uses incorrect grammar and tends to only use nouns and verbs in her speech.

Question 16

Which area of Cheryl's brain is most likely damaged?

- A. Left frontal lobe
- B. Left temporal lobe
- C. Right parietal lobe
- D. Right occipital lobe

Question 17

Which other symptom is Cheryl most likely to experience?

- A. Problems comprehending what others are saying.
- B. Using meaningless, nonsense words in her speech.
- C. Problems perceiving things on the left side of her body.
- D. The partial or complete loss of the ability to recall names (anomia).

Question 18

Which of the following involves activities of the left hemisphere only?

- A. Mathematics, science, writing, fantasy
- B. Mathematics, science, sculpture, logical reasoning
- C. Mathematics, science, writing, logical reasoning
- D. Mathematics, science, dance, logical reasoning

Use the following information to answer question 19 & 20

Tim works with children diagnosed with amnesia.

Question 19

One of Tim's patients has problems establishing new declarative explicit memories. Another patient has problems recalling dangerous situations and does not seem to be capable of fear conditioning.

Which parts of the brain are most likely to be damaged?

- A. The amygdala and hippocampus respectively
- B. The cerebral cortex and frontal lobe respectively
- C. The hippocampus and amygdala respectively
- D. The corpus callosum and cerebral cortex respectively

Question 20

Another of Tim's patients, Michael, is able to recall all events since his accident occurred but cannot recall events prior to the accident. What type of amnesia is Michael suffering from?

- A. Anterograde
- B. Proactive
- C. Retroactive
- D. Retrograde

**SECTION A - continued
TURN OVER**

Question 21

As we age, our memory abilities can be adversely affected. Which of the following tasks would be least affected by normal memory decline in old age?

- A. Identifying correct words from a list of alternatives using recognition.
- B. Remembering how to ride a bike.
- C. Recalling the names of prime ministers in alphabetical order.
- D. Remembering how to poach an egg.

Question 22

If material is unrehearsed, it usually fades from echoic memory after

- A. approximately 3–4 seconds.
- B. approximately 7 (+ or – 2) seconds.
- C. approximately 18 seconds.
- D. approximately 30 seconds.

Question 23

The cerebellum is involved with the processing of which type of memories?

- A. Iconic memories
- B. Short term memories
- C. Long term memories
- D. Procedural memories

Question 24

Which of the following statements regarding the levels of processing theory is **true**?

- A. Elaborate rehearsal leads to increased recall compared to maintenance rehearsal.
- B. Structural (visual) processing leads to lower level of recall than semantic processing.
- C. Semantic processing leads to higher recall than phonetic processing.
- D. All of the above

Question 25

When Carl is in Europe he hires a car. He often forgets to change gear as he drives an automatic car in Australia. This is an example of?

- A. Retrieval cue failure
- B. Motivated forgetting
- C. Proactive interference
- D. Retroactive interference

Question 26

The order of Freud's psychosexual stages (oral, anal, phallic, latency, genital) of development can be remembered using the mnemonic 'old aged pensioners like greens'. This is an example of:

- A An acrostic.
- B An acronym.
- C Elaborative rehearsal.
- D Narrative chaining.

SECTION A - continued

Question 27

Mr. Smith designs a knowledge check on theories of forgetting for his Year 12 Psychology class. He designs a test which consists of multiple choice and short response questions. Which of the following statements would be correct?

- A. The short response questions would be answered most accurately.
- B. The multiple-choice questions would be answered most accurately.
- C. Both parts of test would be answered equally well.
- D. The short response offer more retrieval cues.

Question 28

According to the forgetting curve, what percentage of information will be recalled after 20 minutes when rehearsal is prevented?

- A. 40%
- B. 20 %
- C. 60%
- D. 50%

Question 29

Which of the following is the least sensitive type of retention?

- A. Relearning
- B. Free recall
- C. Cued recall
- D. Serial recall

Question 30

Sperling's famous study of iconic memory found that iconic memory has the following characteristics:

- A. a duration of 0.3 seconds, a capacity of 7 items (+/-2), and visual encoding.
- B. a duration of 0.3 seconds, an unlimited capacity, and visual encoding.
- C. a duration of 3-4 seconds, a capacity of 7 items (+/-2), and visual encoding.
- D. a duration of 18-30 seconds, a capacity of 7 items (+/-2), and visual encoding.

Question 31

Which of the following would explain Alex's behaviour when he deliberately thinks about other things so he does not have to think about a highly embarrassing episode?

- A. Repression
- B. Suppression
- C. Interference
- D. Amnesia

SECTION A - continued
TURN OVER

Question 32

Which of the following statements is least likely to be an accurate reason for memory decline over the lifespan?

- A. Memory capabilities may reduce due to less confidence in one's memory capacity.
- B. Memory capabilities may reduce due to decreased motivation to perform well on memory tasks.
- C. Memory capabilities may reduce due to the slowing down of the central nervous system.
- D. Memory capabilities may reduce since elderly people may have problems with tasks involving recognition.

Question 33

Which of the following theories of forgetting refers to being unable to access memory due to lack of accessibility rather than lack of availability?

- A. Decay
- B. Retrieval failure
- C. Lack of consolidation
- D. Alzheimer's disease

Question 34

Mr. Simmons is a musician. When he is interpreting words in a song and concentrating on the rhythm of the music, which parts of his brain are engaged?

- A. Frontal lobe and primary auditory cortex respectively
- B. Left primary auditory cortex and right primary auditory cortex respectively
- C. Left temporal lobe and right primary auditory cortex respectively
- D. Proactive interference

Use the following information to answer Questions 35-39

When Amy was younger and on a holiday, she and her siblings took part in a waterfall climbing activity. Amy's foot became stuck between rocks and she was very frightened because the water was gushing down on her. She has since developed a phobia of running water. She hates the shower and uses the bath because the water is not running down onto her. She uses hand sanitizer rather than washing her hands under running water.

Question 35

Identify the conditioned stimulus.

- A. Being trapped whilst water was gushed over her.
- B. Running water.
- C. Fear in response to being trapped whilst water gushed over her.
- D. Fear of running water.

Question 36

Identify the unconditioned response.

- A. Being trapped whilst water gushed over her.
- B. Running water.
- C. Fear in response to being trapped whilst water gushed over her.
- D. Fear of running water.

Question 37

Identify the unconditioned stimulus.

- A. Being trapped whilst water gushed over her.
- B. Running water.
- C. Fear in response to being trapped whilst water gushed over her.
- D. Fear of running water.

Question 38

When Amy went on a subsequent holiday, she was forced to take a shower each day as there was no bath in her holiday apartment. By the end of the week, Amy's fear was no longer present. Name the process that has occurred.

- A. Flooding
- B. Graduated exposure
- C. Extinction
- D. Spontaneous recovery

Question 39

When Amy returned home, her fear of the shower returned. This process is known as

- A. Flooding
- B. Graduated exposure
- C. Extinction
- D. Spontaneous recovery

Use the information below to answer Questions 40-42

Jake has a serious gambling addiction. He is paid fortnightly on a Friday. On payday he religiously goes straight to the Crown Casino immediately after work and gambles until the early hours of Saturday morning, spending most of his income. He then relies on his parents to lend him money until his next payday.

Question 40

Name the schedule of reinforcement used by gambling machines such as the pokies.

- A. Fixed Ratio
- B. Fixed Interval
- C. Variable Ratio
- D. Variable Interval

Question 41

Name the schedule of reinforcement used by Jake's employer.

- A. Fixed Ratio
- B. Fixed Interval
- C. Variable Ratio
- D. Variable Interval

Question 42

Name the schedule of reinforcement that would lead to the quickest extinction.

- A. Fixed Ratio
- B. Fixed Interval
- C. Variable Ratio
- D. Variable Interval

Question 43

Identify one technique that could be used in an attempt to remove Jake's undesirable behaviour.

- A. Shaping
- B. Flooding
- C. Graduated exposure
- D. Aversion therapy

Question 44

The part of a neuron that receives the message when we are learning is the

- A. cell body.
- B. dendrites.
- C. synapse.
- D. axon.

Question 45

Which part of the brain is involved in learning via operant conditioning?

- A. Ventral tegmental area
- B. Hippocampus
- C. Amygdala
- D. Cerebellum

Question 46

Which are of the brain works with the cerebellum when learning movements and procedural tasks?

- A. Ventral tegmental area
- B. Basal ganglia
- C. Amygdala
- D. Cerebral cortex

Question 47

Which of the following behaviour is dependent on learning?

- A. Palmar grasp
- B. Voice breaking
- C. Birds flying
- D. Driving

Question 48

Which of the following is not involved in adaptive plasticity?

- A. Synapse formation
- B. Myelination
- C. Dendritic branching
- D. Circuit formation

Question 49

Which of the following is an example of 'reflex' behaviour?

- A. A child crying in fear at a strange noise.
- B. A child answering the phone when it rings.
- C. The pet dog burying a bone in the backyard.
- D. A child running for the first time.

Question 50

Observational learning and operant conditioning differ in that

- A. Observational learning involves learning via association, whereas operant conditioning involves learning via rewards.
- B. Cognition is necessary for observational learning but is not necessary for operant conditioning to occur.
- C. The learner is passive in observational learning but active in operant conditioning.
- D. Operant conditioning occurs vicariously but observational learning does not.

Question 51

Jerome's dad Tom bought him some golf clubs for his tenth birthday. Tom tried to teach his son how to hit a chip shot by demonstrating how to grip the golf club, and how to complete the backswing and follow-through. When it was Jerome's turn, he was unable to imitate his Dad as he had been daydreaming when his Dad was demonstrating what to do. Jerome's inability to hit the ball could **best** be explained by failure at the _____ stage of observational learning.

- A. Attention
- B. Retention
- C. Reproduction
- D. Motivation

Question 52

The law of effect refers to

- A. a learned association between the UCS and the CS.
- B. behaviour becoming controlled by its consequences.
- C. successful reproduction of behaviour following observation.
- D. maturation.

SECTION A - continued
TURN OVER

Question 53

Which of the following is not considered an approach to defining abnormality?

- A. Functional approach
- B. Statistical approach
- C. Socio-cultural approach
- D. Cross-cultural approach

Question 54

In some countries, smoking Marijuana is acceptable and legal. It may even be considered common practice and the 'norm' in countries such as Amsterdam. In Australia, this practice would be defined as abnormal by the _____ approach to normality.

- A. Sociocultural
- B. Statistical
- C. Situational
- D. Functional

Question 55

Refusal to work for a living and keep an orderly lifestyle may be considered abnormal according to which approach?

- A. Functional approach
- B. Medical approach
- C. Historical approach
- D. Situational approach

Question 56

Thoughts, feelings or behaviour are considered _____ when they differ so markedly from cultural norms they are deemed inappropriate.

- A. Distressing
- B. Deviant
- C. Dysfunctional
- D. Diagnosable

Question 57

DSM-IV-TR was developed by the

- A. Australian Psychological Society.
- B. American Psychiatric Association.
- C. American Psychological Society.
- D. World Health Organisation.

Question 58

A transitional approach to mental illness

- A. recognises that symptoms may be graded in terms of severity.
- B. acknowledges that the distinction between normal and abnormal is not always clear.
- C. provides a greater accuracy than the categorical approach when describing a symptom of mental illness.
- D. recognises that symptoms may worsen or improve over time.

SECTION A – continued

Question 59

A graded approach to mental illness

- A. recognises that symptoms may be scored in terms of severity.
- B. acknowledges that the distinction between normal and abnormal is not always clear.
- C. provides a greater accuracy than the categorical approach when describing a symptom of mental illness.
- D. recognises that symptoms may worsen or improve over time.

Question 60

Which of the following is not true of categorical approaches to the classification of mental conditions and disorders?

- A. It uses discrete categories.
- B. It is based on clear diagnostic guidelines.
- C. It avoids labelling.
- D. It allows for easy communication amongst mental health professionals.

Use the following information to answer questions 61 and 62

Dr. Rogers gathers a sample of VCE Psychology students who have reported feeling stressed due to their forthcoming examinations. He gives them various academic tasks to complete and questions each participant in terms of their coping strategies. He places them into one of two groups based on their responses. They are classified and placed in either the problem focused coping strategy group or the emotion focused strategy group. He expects that those who use problem-focused strategies to deal with the academic demands may perform better in an academic test that is performed at the end of the week.

Question 61

What is the independent variable in this study?

- A. The students' score on the test at the end of the week.
- B. Whether students used problem focused or emotion focused coping strategies.
- C. Students' stress levels at the end of the week.
- D. Student perception of the stressor.

Question 62

What is the dependent variable?

- A. The students' scores on the test at the end of the week.
- B. Whether students used problem focused or emotion focused coping strategies
- C. Students stress levels at the end of the week
- D. Student perception of the stressor

**SECTION A – continued
TURN OVER**

Question 63

In terms of Holmes and Rahe's life event scale, which life event is rated as the second most stressful life event?

- A. Divorce
- B. Jail term
- C. Pregnancy
- D. Death of a spouse

Question 64

According to Lazarus and Folkman, when we evaluate our coping resources, this is part of the

- A. experience of eustress
- B. experience of distress
- C. secondary appraisal
- D. primary appraisal

Question 65

Which of the following is a strength of Lazarus and Folkman's transactional model of stress?

- A. It takes account of the fact that different individuals may perceive the same stressor very differently.
- B. It used human participants to develop the model.
- C. It recognises that an event previously perceived as a stressor may be reappraised more positively.
- D. All of the above

END OF SECTION A

SECTION B – Short answer questions

Instructions for Section B

Answer **all** questions in the spaces provided.

Question 1 (4 marks)

- a.** Jeremy was in a car accident and damaged the association area of the frontal lobe. Describe the function of the association area in the frontal lobe. 2 marks

- b.** Name and explain one task that Jeremy may have trouble performing. 2 marks

Question 2 (2 marks)

In what ways are dimensional systems for diagnosis and classification of mental disorder preferable than categorical systems of diagnosis and classification?

SECTION B – continued
TURN OVER

Question 3 (4 marks)

Jenny has started to teach her daughter Savannah to help with chores, such as cleaning areas of the house and washing the family car, by rewarding her with pocket money for such tasks. She rewards her whenever she has the available spare coins. Thus Savannah is sometimes rewarded after an intermittent number of tasks, rather than set number of tasks.

- a. Name the schedule of reinforcement used by Jenny.

1 mark

- b. What schedule of reinforcement could Jenny have used to encourage Savannah to take on chores in order for Savannah to learn very quickly that she should complete such tasks.

1 mark

- c. Which schedule of reinforcement would lead to Savannah developing a slower rate of helping with the household chores? Explain your selection.

2 marks

SECTION B – continued

Question 4 (3 marks)

Complete the table below.

Key differences between classical and operant conditioning

	Observational Learning	Operant conditioning
Direct versus indirect learning	Indirect	
The role of the learner		Active
Observable versus unobservable evidence of learning	Not always observable	

Question 5 (4 marks)

Mark is learning how to speak German and frequently listens to tapes when he drops his daughter off at preschool. He notices that she has begun to use some of the German vocabulary and uses the correct pronunciation. He decides to encourage this and finds that she quickly adapts to the experience of being exposed to a second language. She appears to be learning the language more quickly and easily than Mark is. In terms of Mark and his daughter, explain the difference between experience expectant and experience dependent learning.

SECTION B – continued
TURN OVER

Question 6 (3 marks)

Tom's dog, Max, has learnt that if he sits when Tom asks him to, he will receive a treat in the form of a dog chew. Name each stage of the three-phase model of operant conditioning and refer to an appropriate example for each phase according to this scenario.

Question 7 (6 marks)

Jessie is currently going through divorce proceedings. She has a 3 year old daughter and works full time. She has just found out that she has been accepted into the post graduate course she applied for almost a year ago. Whilst she is pleased to have a place on the course, she is feeling overwhelmed with the number of issues she currently has to deal with and does not know if she has the capacity to take on more work. In terms of the biopsychosocial framework, explain how Jessie may successfully manage her stress.

SECTION B – continued

Question 8 (3 marks)

Name one body system that is considered to be an allostatic system and explain why it is thought to be an allostatic system rather than a homeostatic system.

SECTION B – continued
TURN OVER

Question 9 (5 marks)

Sally has been working long hours as a lawyer. Her job is extremely mentally challenging and when she gets home she is exhausted. Her husband Scott has been training for a marathon and is also feeling exhausted. They both find they are going to bed earlier than usual and are sleeping very well.

- a. According to the restoration theory of sleep, how might their sleep recovery patterns differ slightly?

3 marks

- b. Explain how an EEG could be used to validate any expected differences in sleep recovery patterns.

2 marks

SECTION B – continued

Question 10 (3 marks)

Using an example, distinguish between retroactive and proactive interference.

Question 11 (6 marks)

Simone is a Psychology teacher. Name and explain the role of three components of her working memory when she delivers a presentation on the neurological processes involved in memory formation.

SECTION B – continued
TURN OVER

Question 12 (3 marks)

A robbery takes place in a local supermarket and a young shop assistant is forced to hand over a considerable amount of cash. Police think they may know who the offender is but must clarify his appearance with the shop assistant. The investigating officers are aware that they must be careful not to influence the victim's description based on their own expectations.

- a.** Provide an example of a question they might use.

1 mark

- b.** Explain why the question you have outlined is appropriate.

2 marks

Question 13 (7 marks)

- a.** Referring to explicit and implicit memories, explain the most common form of memory decline in old age. 4 marks

SECTION B – continued

b. How does memory decline in old age differ from Alzheimer's disease?

3 marks

Question 14 (3 marks)

Differentiate between extraneous and confounding variables.

SECTION B – continued
TURN OVER

Question 15 (4 marks)

Distinguish between critical and sensitive periods

END OF SECTION B

SECTION C – Extended response question**Instructions for Section C**

Answer the question in the spaces provided.

Mr. Brown is interested in the effects of using different teaching styles on student scores in a test. He decides to use two very different strategies for a period of one month and then conduct a topic test at the end of the month.

To investigate this he selects ten students based on their academic capability, ensuring he has a sub-group of students to represent a range of abilities. Another ten students are then chosen and matched to the first ten in terms of academic ability. All students are given information about the study and if they are under eighteen, their parents are required to sign a consent form in order for them to participate.

All test scores are outlined in the table below.

	Teaching Strategy 1	Teaching Strategy 2
Test Score (Mean %)	62	88

Mr. Brown determined that the results would be significant if the p-value obtained was less than 0.05.

Statistical tests were conducted to determine whether the means between the groups were significant and it was found that there was a difference at, $p=0.03$

Question 1 (2 marks)

Identify one descriptive statistic and one inferential statistic used to summarise the results.

Descriptive statistic:

Inferential statistic:

SECTION C – continued
TURN OVER

Question 2 (3 marks)

Comment on whether or not it is possible to generalise these results to the population.

Question 3 (10 marks)

The researcher wanted to look at the different styles of teaching and learning further. He was interested in the effect of different learning styles such as visual, kinesthetic, verbal and so on. Write a possible research hypothesis and method section for an experiment that might investigate this area of study. Use the appropriate conventions of psychological report writing.

In your response, include the following:

- Research hypothesis
- Participants including sampling and allocation procedures
- Procedure, including appropriate research design and data collection methods
- Potential extraneous variables

SECTION C – continued

Page 27 of 27