



Victorian Certificate of Education 2018

Name: _____

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STUDENT NUMBER Letter

PSYCHOLOGY

Written examination

2018

Reading time: 15 minutes
Writing time: 2 hours 30 minutes

QUESTION AND ANSWER BOOK

Structure of book

Section	Number of questions	Number of questions to be answered	Number of marks
A	50	50	50
B	12	12	70
			Total 120

- 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 allowed in this examination.

Materials supplied

- Question and answer booklet.
- Answer sheet for multiple-choice questions.
- Additional space is available at the end of the booklet if you need extra paper to complete an answer.

Instructions

- Write your **student number** in the space provided above on this page.
- Check that your **name** and **student number** on your answer sheet for multiple-choice questions are correct.
- All written responses must be in English.

At the end of the examination

- Place the answer sheet for multiple-choice questions inside the front cover of this book.

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 in pencil on the answer sheet provided for multiple-choice questions.

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

A correct answer scores 1; an incorrect answer score 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

_____ are the branch-like structures that receive messages from other neurons.

- A. Synapses
- B. Axons
- C. Dendrites
- D. Neurotransmitters

Question 2

Which of the following is true of neurotransmitters?

- A. neurotransmitters can bind to any receptor site; the neurotransmitter then passes through a neuron before being released into the synaptic cleft
- B. neurotransmitters can bind to any receptor site, and are responsible for the communication of a neural message between neurons
- C. neurotransmitters bind to receptor sites that are specific to that type of neurotransmitter; the neurotransmitter then passes through a neuron before being released into the synaptic cleft
- D. neurotransmitters bind to receptor sites that are specific to that type of neurotransmitter, and are responsible for the communication of a neural message between neurons

Question 3

The divisions of the autonomic nervous system include the

- A. peripheral nervous system and the central nervous system.
- B. parasympathetic nervous system and the somatic nervous system.
- C. parasympathetic nervous system and the sympathetic nervous system.
- D. sympathetic nervous system and the somatic nervous system.

Question 4

Which of the following is a machine that records the patterns produced by the electrical activity of the muscles that move the eyes?

- A. electroencephalogram
- B. electro-oculogram
- C. electromyogram
- D. magnetic resonance imaging

Question 5

Damage to the cerebellum is likely to disrupt which of the following memories?

- A. your memory of how to pass a ball without running, in netball
- B. the memory of your fifth birthday party
- C. knowing who your Psychology teacher is
- D. knowing the capital city of Victoria

Question 6

Which of the following is not required for an experiment?

- A. systematic manipulation of an independent variable
- B. measurement of a dependent variable
- C. random allocation
- D. random sampling

Question 7

Sleepiness at night-time due to a lack of light is likely a consequence of activity in the

- A. cerebellum.
- B. hypothalamus.
- C. amygdala.
- D. cerebral cortex.

Question 8

Alcohol is considered a _____; caffeine is considered a _____.

- A. stimulant; stimulant
- B. stimulant; depressant
- C. depressant; stimulant
- D. depressant; depressant

Question 9

Cause and effect relationships can only be determined by

- A. experiments.
- B. correlational studies.
- C. case studies.
- D. cross-sectional studies.

Question 10

Lindy experiences sleepwalking during her sleep. Which stage of sleep is she most likely in while sleepwalking?

- A. NREM stage 1
- B. NREM stage 2
- C. NREM stage 3
- D. REM

Question 11

Sleepwalking is considered a

- A. insomnia.
- B. parasomnia.
- C. dyssomnia.
- D. circadian rhythm.

Use the following information to answer Questions 12 and 13.

Ken drinks some water when he begins to feel a headache. This results in his headache going away.

Question 12

Which of the following best describes the three-phase model of conditioning for Ken?

- A. antecedent: drinking water
behaviour: the headache going away
consequence: reinforcement of drinking water
- B. antecedent: beginning to feel a headache
behaviour: drinking water
consequence: the headache going away
- C. before conditioning: no response to water
during conditioning: pairing water with the removal of a headache
after conditioning: not having headaches after drinking water
- D. before conditioning: no response to headaches
during conditioning: pairing water with the removal of a headache
after conditioning: not having headaches after drinking water

Question 13

Because the water takes away his headache, Ken is more likely to drink more water in future. The water is acting as a

- A. negative reinforcer.
- B. positive reinforcer.
- C. negative punisher.
- D. conditioned stimulus.

Question 14

In preparation for a SAC, Tina reads a list of ten definitions over and over without linking them to anything she already knows, whereas Lisa reads a list of ten definitions and thinks about how they might relate to other concepts she's learnt before and comes up with real-life examples of each definition. Tina is engaging in _____, and Lisa is engaging in _____.

- A. elaborative rehearsal; elaborative rehearsal
- B. elaborative rehearsal; maintenance rehearsal
- C. maintenance rehearsal; elaborative rehearsal
- D. maintenance rehearsal; maintenance rehearsal

Question 15

Which of the following is **not** an example of an implicit memory?

- A. classically conditioned responses
- B. procedural memory
- C. episodic memory
- D. the emotional content of an episodic memory

Question 16

Which of the following brain regions is least active in the consolidation and long-term storage of implicit memories?

- A. hippocampus
- B. cerebral cortex
- C. amygdala
- D. cerebellum

Use the following information to answer Questions 17-22.

Ms Fun wanted to test the effect of eating lollies on the memorisation of a list of 20 words. To test this, Ms Fun utilises her Year 12 Psychology class of 20 students. She flips a coin to divide her class into Group A, who eat a lolly while memorising a list of 20 words, or Group B, who do not eat any lollies while they memorise a list of 20 words. Below is the raw data she collected from each group.

	Number of words correctly recalled for each student									
Group A	12	13	13	12	14	14	14	12	11	1
Group B	1	3	7	9	11	13	15	17	19	20

Mean of Group A: 11.6 words correctly recalled

Mean of Group B: 11.5 words correctly recalled

Question 17

What was the sampling technique that Ms Fun employed?

- A. convenient sampling
- B. random sampling
- C. stratified sampling
- D. convenience sampling

Question 18

Which of the following descriptive statistics would be the best measure of central tendency for Group A, and why?

- A. mean, as this takes into account the whole dataset
- B. median, as this accounts for any outliers
- C. mode, as this accounts for any outliers
- D. standard deviation, as this takes into account the whole dataset

Question 19

Which of the following is correct regarding the standard deviations of each group?

- A. Group A has a higher standard deviation than Group B because Group A has a higher spread of scores
- B. Group A has a higher standard deviation than Group B because Group A has a lower spread of scores
- C. Group B has a higher standard deviation than Group A because Group B has a higher spread of scores
- D. Group B has a higher standard deviation than Group A because Group B has a lower spread of scores

Question 20

Extraneous variables such as Ms Fun's participants' baseline memory ability were not taken into account. Which of the following is most threatened by these extraneous variables?

- A. internal validity
- B. construct validity
- C. test-retest reliability
- D. construct reliability

Question 21

Which of the following graphs would best represent Ms Fun's descriptive statistics?

- A. pie chart
- B. line graph
- C. histogram
- D. bar chart

Question 22

Which of the following would be required for Ms Fun to generalise her finding that lollies improve the memorisation of a list of 20 words?

- A. inferential statistics showing a statistically significant difference between Group A and B, which is likely given her data
- B. inferential statistics showing a statistically significant difference between Group A and B, which is unlikely given her data
- C. descriptive statistics showing a statistically significant difference between Group A and B, which is likely given her data
- D. descriptive statistics showing a statistically significant difference between Group A and B, which is unlikely given her data

Question 23

The pruning of synaptic connections is characteristic of

- A. long term depression.
- B. long term potentiation.
- C. synaptogenesis.
- D. neural proliferation.

Use the following information to answer Questions 24-26.

In the 'Little Albert' experiment, classical conditioning was used to condition a fear response to a white rat.

Question 24

In this experiment, the white rat

- A. was initially unconditioned, but became the neutral stimulus.
- B. was initially unconditioned, but became the conditioned stimulus.
- C. was initially neutral, but became the conditioned stimulus.
- D. was initially neutral, but became the unconditioned stimulus.

Question 25

If Little Albert feared all white furry objects, this would be a demonstration of _____, whereas if Little Albert only feared the white rat, this would be a demonstration of _____.

- A. stimulus generalisation; stimulus generalisation
- B. stimulus discrimination; stimulus generalisation
- C. stimulus generalisation; stimulus discrimination
- D. stimulus discrimination; stimulus discrimination

Question 26

Little Albert's surname was not publicly disclosed in Watson and Raynor's report on the study of fear conditioning. This suggests that the researchers attempted to uphold

- A. debriefing.
- B. no harm principle.
- C. confidentiality.
- D. informed consent.

Question 27

A stressor is a _____; stress is a _____.

- A. stimulus; stimulus
- B. stimulus; response
- C. response; stimulus
- D. response; response

Question 28

Ashley has recently had her pet hamster pass away. She loved her hamster very much and is heartbroken. Instead of ignoring her sadness, she decides to write a diary whenever she feels down, which has helped her with her grief. Ashley is most likely employing both a/n _____ and an _____.

- A. problem-focused coping strategy; approach strategy
- B. problem-focused coping strategy; avoidance strategy
- C. emotion-focused coping strategy; approach strategy
- D. emotion-focused coping strategy; avoidance strategy

Question 29

In which stage/sub-stage of Selye's General Adaptation Syndrome is the onset of the fight-flight response most likely to occur?

- A. resistance
- B. alarm reaction: countershock
- C. alarm reaction: shock
- D. exhaustion

Question 30

The hand-withdrawal reflex is an example of a/n _____ initiated by the _____.

- A. conscious response; spine
- B. conscious response; spinal cord
- C. unconscious response; spine
- D. unconscious response; spinal cord

Question 31

Parkinson's Disease is characterised in part by the loss of dopaminergic (dopamine-producing) neurons in the _____.

- A. substantia nigra
- B. hypothalamus
- C. pituitary gland
- D. adrenal gland

Question 32

Which of the following symptoms of Parkinson's disease is **not** likely due to the loss of dopamine-producing neurons?

- A. bradykinesia
- B. anosmia (loss of the sense of smell)
- C. postural instability
- D. akinesia

Question 33

A neurotransmitter often involved in long term potentiation is _____. This neurotransmitter makes it _____ likely for an action potential to continue in the post-synaptic neuron.

- A. glutamate; more
- B. glutamate; less
- C. GABA; more
- D. GABA; less

Question 34

Which of the following is false regarding the evolutionary (circadian) theory of sleep?

- A. it explains why an organism must sleep
- B. sleep protects an organism from predators during the most dangerous parts of the day
- C. sleep promotes survival
- D. animals that eat relatively nutritious foods require less sleep

Question 35

Which of the following is true regarding sleep across the lifespan?

- A. the proportion of REM sleep increases as we age
- B. the proportion of NREM sleep increases as we age
- C. the amount of REM sleep increases as we age
- D. the amount of NREM sleep increases as we age

Question 36

Research suggests that a blood-alcohol concentration (BAC) of 0.05% appears to have similar cognitive effects of

- A. 24 hours of staying awake.
- B. 24 hours of sleep deprivation after a normal day awake.
- C. 17 hours of staying awake.
- D. 17 hours of sleep deprivation after a normal day awake.

Question 37

Benzodiazepines are considered _____ that help to reduce anxiety by _____.

- A. glutamate antagonists; inhibiting glutamate's effects
- B. glutamate agonists; mimicking glutamate's effects
- C. GABA antagonists; inhibiting GABA's effects
- D. GABA agonists; mimicking GABA's effects

Question 38

Larry, a smoker who aims to quit smoking, has just bought his first packet of nicotine-patches to reduce his smoking. In which stage of the transtheoretical model is Larry likely to be in?

- A. contemplation
- B. preparation
- C. action
- D. maintenance/relapse

Question 39

Larry has now quit smoking completely for one week. In which stage of the transtheoretical model is Larry likely to be in?

- A. contemplation
- B. preparation
- C. action
- D. maintenance/relapse

Question 40

Meditation would be considered _____.

- A. a naturally occurring altered state of consciousness
- B. an induced altered state of consciousness
- C. a naturally occurring state of normal waking consciousness
- D. an induced state of normal waking consciousness

Question 41

Which of the following best describes a mentally healthy person?

- A. an individual who does not have a mental disorder
- B. an individual who has high self-efficacy
- C. an individual who has high self-esteem
- D. an individual who can cope with the normal stresses of life, and is able to make a positive contribution to her or his community

Question 42

Rumination involves

- A. taking action to solve a problem.
- B. thinking productively and actively about negative emotions.
- C. thinking repetitively and passively about negative emotions.
- D. problem-focused coping strategies.

Question 43

Specific phobias may be _____ by classical conditioning and _____ by operant conditioning.

- A. precipitated; perpetuated
- B. perpetuated; precipitated
- C. predisposed; precipitated
- D. predisposed; perpetuated

Question 44

Avoidance behaviours such as running away from spiders if fearful of them are likely due to

- A. positive reinforcement.
- B. negative reinforcement.
- C. punishment.
- D. response cost.

Question 45

Resilience can be increased through a variety of protective factors. Which of the following correctly categorises biological, psychological and social protective factors that can increase resilience?

	Biological	Psychological	Social
A.	adequate diet	support from friends	cognitive behavioural strategies
B.	cognitive behavioural strategies	adequate sleep	support from family
C.	cognitive behavioural strategies	support from the community	adequate diet
D.	adequate sleep	cognitive behavioural strategies	support from friends

Question 46

Which of the following is true regarding the concept of cumulative risk?

- A. the risk to mental health is not affected by the aggregation of risk factors
- B. single risk factors are more predictive of the development of a mental disorder rather than multiple risk factors
- C. multiple risk factors are more predictive of the development of a mental disorder rather than any single risk factor
- D. a large aggregate of risk factors will always lead to mental disorders

Question 47

Disorganised attachment is characterised by

- A. a lack of conscientiousness.
- B. a lack of a loving caregiver.
- C. readily being comforted by the attachment figure.
- D. behaving in contradictory ways that reflect a difficulty predicting or understanding the way their attachment figures will behave.

Use the following information to answer Questions 48-50.

Jen has unexpectedly broken up with her partner of five years, which leads her to feel very sad. She is unable to motivate herself to get out of bed, has outbursts of intense crying, and has lost her appetite for food she normally enjoys. Jen believes that she is at increased risk of depression because her identical twin sister battled the condition last year, and many other family members have experienced depression.

Question 48

Jen's apparent genetic vulnerability to depression would be considered a _____ factor.

- A. protective
- B. predisposing
- C. perpetuating
- D. precipitating

Question 49

Jen unexpectedly breaking up with her partner would most likely to be considered a _____ factor.

- A. protective
- B. predisposing
- C. perpetuating
- D. precipitating

Question 50

Jen visits her GP, Dr Jones, to seek treatment. Dr Jones believes that Jen's condition makes her eligible for a study into a new anti-depressant drug. If Dr Jones does not tell Jen that she may be allocated into a placebo treatment or actual treatment group, then Dr Jones is not following the ethical principle of _____.

- A. informed consent
- B. withdrawal rights
- C. no harm
- D. confidentiality

Question 2 (20 marks)

Jamie has a specific phobia of bees. When he was five years old, he was stung seven times by a swarm of bees, which caused him to cry from the pain. Several years on, he is still very fearful of bees; whenever he sees one, he runs away, screaming at the top of his lungs. Jamie believes that all bees are evil, are out to sting him, and that he will die if he gets another sting.

At home, Jamie spends a lot of time sealing any gaps where he thinks a bee could enter his room; he tapes the spaces between his bedroom door and the floor, and the edges of his window.

One day, he spotted a bee on his walk to school and ran back home. He could not leave his room for a week without experiencing a panic attack. Jamie is very distressed about encountering bees, but also is upset that his phobia has detrimentally affected his Year 12 studies.

- a. Would Jamie be considered to be mentally healthy, experiencing a mental health problem, or experiencing a mental disorder? Justify your response with reference to the scenario. 4 marks

- b. What is the difference between specific phobia and anxiety? 2 marks

- c. What is a similarity between specific phobia and anxiety? 1 mark

d. Define catastrophic thinking and provide an example of this from the scenario. 2 marks

e. Use the three-phase process of classical conditioning to explain how Jamie might have acquired his phobia. 7 marks

f. As a result of acquiring a phobia of bees, Jamie also has a phobia of anything that looks or sounds like a bee, such as wasps. This additional phobia is a result of which process of classical conditioning? 1 mark

- g.** What is the role of the amygdala and the hippocampus in the consolidation of the stinging incident when Jamie was five years old? 3 marks

Question 3 (8 marks)

Twenty students in Ms Muffet's Year 12 Psychology class take part in her serial position effect experiment. The class has two minutes to memorise a list of 15 words that are read aloud by Ms Muffet.

Group 1 (10 students) is only allowed to write down any words they remember (in any order) after they have completed an additional page of maths sums (taking approximately two more minutes to complete).

Group 2 (the remaining 10 students) can write down as many words as they can remember, in any order, immediately after the two minutes of memorisation.

- a. What method to retrieve information was used by both groups? 1 mark
-
- b. Draw an appropriately labelled graph of the expected results for Group 1 and Group 2. Draw a trend line for both Groups 1 and 2. 4 marks

Question 5 (5 marks)

Researchers in 2004 trained Monkey A (the model) to touch four pictures in a certain order, to be rewarded with a banana. After watching Monkey A, the researchers found that Monkey B (the learner) learnt to touch the four pictures in the same order, even when the configuration of the pictures was altered. Use the five stages of observational learning to describe the learning process for Monkey B.

Question 6 (2 marks)

Describe how bright light therapy can be used to treat sleep-wake shifts in adolescence.

Question 7 (1 mark)

Name the specific part of the brain that would lead to anterograde amnesia of declarative memories, if removed.

Question 8 (3 marks)

What is meant by the reconstructive nature of memory? Refer to how encoding, storage and retrieval may be affected by leading questions.

Question 9 (8 marks)

a. Distinguish between recall, recognition and relearning, with reference to an example of each. 6 marks

b. If you were to ask a group of participants to engage in a recall or a recognition task, which of the tasks would you expect would lead to greater levels of retrieval? Justify your answer. 2 marks

Question 10 (2 marks)

With reference to context dependent cues, describe why listening to music while studying for the Psychology exam may not be a good strategy for performance in the exam.

Question 11 (2 marks)

Last night, Andy was kept awake for most of the night due to his baby daughter, and only managed to sleep for two hours. List two possible impacts of this sleep deprivation on Andy's affective functioning.



VCE PSYCHOLOGY
 Written Examination
ANSWER SHEET – 2018

**STUDENT
 NAME:**

Use a **PENCIL** for **ALL** entries. For each question, shade the box which indicates your answer.
 Marks will **NOT** be deducted for incorrect answers.
NO MARK will be given if more than one answer is completed for any question.
 If you make a mistake, **ERASE** the incorrect answer – **DO NOT** cross it out.

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