Psychology 2018
Assessment Guide

Section A

VCAA Key Knowledge	Question	Answer guide
the role of the neuron (dendrites, axon, myelin and axon terminals) as the primary cell involved in the reception and transmission of information across the synapse (excluding details related to signal transduction)	**Question 1** _____ are the branch-like structures that receive messages from other neurons. **A.** Synapses **B.** Axons **C.** Dendrites **D.** Neurotransmitters	***C*** *Dendrites receive information from neighbouring neurons in the form of neurotransmitters.*
the role of neurotransmitters in the transmission of neural information between neurons (lock-and-key process) to produce excitatory effects (as with glutamate) or inhibitory effects (as with gamma amino butyric acid [GABA])	**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	***D*** *Neurotransmitters can only bind to specific receptor sites of complementary chemical shapes (think of the lock and key process) and are the mode of communication between neurons. Action potentials are the mode of communication within neurons.*

the roles of different divisions of the nervous system (central and peripheral nervous systems and their associated sub-divisions) in responding to, and integrating and coordinating with, sensory stimuli received by the body

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.

C The autonomic nervous system includes the parasympathetic nervous system and the sympathetic nervous system.

the measurement of physiological responses to indicate different states of consciousness, including electroencephalograph (EEG), electromyograph (EMG), electro-oculograph (EOG) and other techniques to investigate consciousness (measurement of speed and accuracy on cognitive tasks, subjective reporting of consciousness, including sleep diaries, and video monitoring)

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

B The electro-oculogram (EOG) detects, amplifies and records the electrical activity of the muscles that move the eyes.

interactions between specific regions of the brain (cerebral cortex, hippocampus, amygdala and cerebellum) in the storage of long-term memories, including implicit and explicit memories.

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

A The cerebellum is responsible for the consolidation of motor information, such as your memory of how to pass a ball without running in netball.

the characteristics of scientific research methodologies and techniques of primary qualitative and quantitative data collection relevant to the selected investigation: experiments, self-reports, questionnaires, interviews and/ or use of rating scales; reliability and validity of data; and minimisation of experimental bias and confounding and extraneous variables

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

D *Random sampling is not required for an experiment to occur, as other forms of sampling (e.g. convenience or stratified sampling) could occur and an experiment take place. Random allocation is required for a true experimental design. If not, the use of existing groups would be considered a cross-sectional study, or a quasi-experimental design.*

sleep as a regular and naturally occurring altered state of consciousness that follows a circadian rhythm and involves the ultradian rhythms of REM and NREM Stages 1–4 sleep excluding corresponding brain wave patterns and physiological responses for each stage

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.

B *The hypothalamus houses the suprachiasmatic nucleus (SCN) which is responsible for the increased production of melatonin (in the pineal gland; inducing drowsiness) when there is a lack of light hitting the retinas.*

changes in levels of alertness as indicated by brain waves patterns (beta, alpha, theta, delta) due to drug-induced altered states of consciousness (stimulants and depressants)

Question 8

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

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

C *Alcohol slows down the functioning of the nervous system (making it a depressant), whereas caffeine increases the activity of the nervous system (making it a stimulant).*

the characteristics of scientific research methodologies and techniques of primary qualitative and quantitative data collection relevant to the selected investigation: experiments, self-reports, questionnaires, interviews and/ or use of rating scales; reliability and validity of data; and minimisation of experimental bias and confounding and extraneous variables	**Question 9** Cause and effect relationships can only be determined by **A.** experiments. **B.** correlational studies. **C.** case studies. **D.** cross-sectional studies.	*A* *Only experiments can elicit information about the independent variable's causal relationship with the dependent variable.*

the distinction between dyssomnias (including sleep-onset insomnia) and parasomnias (including sleep walking) with reference to the effects on a person's sleep-wake cycle	**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	*C* *Sleepwalking typically occurs during NREM stages 3 and/or 4 sleep.*

the distinction between dyssomnias (including sleep-onset insomnia) and parasomnias (including sleep walking) with reference to the effects on a person's sleep-wake cycle	**Question 11** Sleepwalking is considered a **A.** insomnia. **B.** parasomnia. **C.** dyssomnia. **D.** circadian rhythm.	*B* *Sleepwalking is considered a parasomnia as it is a phenomenon that occurs during sleep – they are not dyssomnias (disorders of maintaining or initiating sleep).*

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.

operant conditioning as a three-phase model (antecedent, behaviour, consequence) involving reinforcers (positive and negative) and punishment (including response cost) that can be used to change voluntary behaviours, including stimulus generalisation, stimulus discrimination and spontaneous recovery (excluding schedules of reinforcement)

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

B This is an example of operant conditioning because drinking water is a voluntary action in this case. The antecedent of the beginnings of a headache lead Ken to the behaviour of drinking water, leading to the headache being taken away.

operant conditioning as a three-phase model (antecedent, behaviour, consequence) involving reinforcers (positive and negative) and punishment (including response cost) that can be used to change voluntary behaviours, including stimulus generalisation, stimulus discrimination and spontaneous recovery (excluding schedules of reinforcement)

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.

A Because the water is taking away ('negative') an aversive stimulus (the headache), this increases the likelihood of Ken drinking more water in future (reinforcement).

the factors influencing a person's ability and inability to remember information, including context and state dependent cues, maintenance and elaborative rehearsal and serial position effect

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

C Maintenance rehearsal involves repeating information over and over without linking to information already in long term memory, whereas elaborative rehearsal involves linking information to other memories.

interactions between specific regions of the brain (cerebral cortex, hippocampus, amygdala and cerebellum) in the storage of long-term memories, including implicit and explicit memories.

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

C *Episodic memory is a type of explicit, declarative memory. Classically conditioned responses, procedural memory and the emotional content of an episodic memory are all considered to be non-declarative, implicit memory.*

interactions between specific regions of the brain (cerebral cortex, hippocampus, amygdala and cerebellum) in the storage of long-term memories, including implicit and explicit memories.

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

A *The hippocampus is responsible for the consolidation of explicit memory and is not involved in the consolidation of implicit memory. The amygdala and cerebellum play a role in the consolidation of implicit memory, while the cerebral cortex is responsible for the long-term store of this information.*

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

select appropriate sampling procedures for selection and allocation of participants including random sampling, stratified sampling, convenience sampling and random allocation of participants to groups

Question 17

What was the sampling technique that Ms Fun employed?

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

D *Ms Fun used her Year 12 Psychology class, based on their availability, meaning that convenience (not convenient!) sampling was utilised. Note that the key term is 'convenience sampling', and that students will not be awarded marks for 'convenient sampling'.*

organise, present and interpret data using tables, bar charts, line graphs, percentages, calculations of mean as a measure of central tendency and understanding of standard deviation as a measure of variation around the mean	**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	*B* *The median is not affected by outliers as much as the mean, and therefore, this is likely to be a better measure of central tendency for Group A (given the outlier of a student correctly recalling only 1 word).*

organise, present and interpret data using tables, bar charts, line graphs, percentages, calculations of mean as a measure of central tendency and understanding of standard deviation as a measure of variation around the mean	**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	*C* *Standard deviation is a measure of the spread of scores. As Group B has a wider spread of scores (not clustered around the mean of 11.5 words correctly recalled), this likely indicates a higher standard deviation than Group A, where most of the scores are clustered around the mean of 11.6. Note that students are not permitted to bring a calculator into the examination room – students should be able to judge the spread of scores by looking at the relatively high variety/range of results in Group B compared to Group A.*

use basic principles of reliability and validity in evaluating research investigations undertaken	**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	*A* *Internal validity (determining a causal relationship between independent and dependent variables) is most at risk with extraneous variables that could otherwise explain the changes in the dependent variable.*

organise, present and interpret data using tables, bar charts, line graphs, percentages, calculations of mean as a measure of central tendency and understanding of standard deviation as a measure of variation around the mean	**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	*D* *A bar chart would best represent the means/medians of Ms Fun's results, as the two groups are discrete.*

generalisability of statistics from samples to the populations from which the sample was derived

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

B *Inferential statistics (such as measures of statistically significant differences between groups) are required in order for conclusions to be drawn and for generalisations to be made for the population of research interest. It is unlikely that Ms Fun's results will be statistically significant, given that the means of Group A and Group B are almost identical.*

neural plasticity and changes to connections between neurons (including long-term potentiation and long-term depression) as the fundamental mechanisms of memory formation that leads to learning

Question 23

The pruning of synaptic connections is characteristic of

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

A *Long term depression is characterised by the weakening of neural connections, which may involve the pruning of synaptic connections.*

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.

the 'Little Albert' experiment as illustrating how classical conditioning can be used to condition an emotional response, including ethical implications of the experiment.

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.

C *The white rat was initially neutral (it did not elicit a fear response), but after being repeatedly paired with a loud noise, Little Albert began to fear (CR) the white rat (CS).*

the 'Little Albert' experiment as illustrating how classical conditioning can be used to condition an emotional response, including ethical implications of the experiment.

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

C *Stimulus generalisation refers to the CR (fear) occurring to stimuli similar to the CS (other white furry objects), whereas stimulus discrimination refers to only the CS (white rat) eliciting the CR (fear).*

the 'Little Albert' experiment as illustrating how classical conditioning can be used to condition an emotional response, including ethical implications of the experiment.

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.

C *Confidentiality requires the researchers to keep participants' names and data anonymous. Many researchers believe that 'Little Albert' was a pseudonym (a fake name).*

sources of stress (eustress and distress) including daily pressures, life events, acculturative stress, major stress and catastrophes that disrupt whole communities

Question 27

A stressor is a _____; stress is a _____.

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

B *Stress is a response to a stressor (an internal or external stimulus that causes stress).*

context-specific effectiveness, coping flexibility and use of particular strategies (exercise and approach and avoidance strategies) for coping with stress.

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

C *Ashley is likely employing both an emotion-focused coping strategy and an approach strategy, as she is primarily dealing with the emotions associated with the stressor and using a diary to focus her attention on these feelings. Note that an approach strategy involves focusing thoughts/feelings/behaviours toward the stressor (her pet hamster's passing).*

models of stress as a biological process, with reference to Selye's General Adaptation Syndrome of alarm reaction (shock/counter shock), resistance and exhaustion, including the 'fight-flight-freeze' response and the role of cortisol

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

B *The fight-flight response is most likely to occur during the countershock subs-stage of the alarm reaction stage, when the body increases its resistance to the stressor after an initial period of shock.*

the distinction between conscious and unconscious responses by the nervous system to sensory stimuli, including the role of the spinal reflex

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

D *The hand-withdrawal reflex is an unconscious response because the action occurs before any awareness (e.g. of the heat of a hot pot) and is initiated by the spinal cord (not the spine, which refers to the vertebrae that encloses the spinal cord).*

the effects of chronic changes to the functioning of the nervous system due to interference to neurotransmitter function, as illustrated by the role of dopamine in Parkinson's disease.

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

A *Dopaminergic neurons in the substantia nigra (part of the basal ganglia in the midbrain) are often weakened or lost in the Parkinson's Disease brain.*

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the effects of chronic changes to the functioning of the nervous system due to interference to neurotransmitter function, as illustrated by the role of dopamine in Parkinson's disease.

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

B *The motor symptoms of Parkinson's Disease are likely due to the loss of dopamine-producing neurons. The non-motor symptoms (such as anosmia) are due to other problems with different neurotransmitters, such as GABA.*

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the role of neurotransmitters and neurohormones in the neural basis of memory and learning (including the role of glutamate in synaptic plasticity and the role of adrenaline in the consolidation of emotionally arousing experiences).

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

A *Long term potentiation often involves the release of glutamate, which has excitatory effects, meaning that it is more likely for an action potential to propagate in the post-synaptic neuron.*

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theories of the purpose and function of sleep (REM and NREM) including restoration theory and evolutionary (circadian) theory

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

A *The evolutionary theory of sleep does not explain why organisms must sleep – it only explains why organisms sleep for certain durations and times of the day.*

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the differences in sleep across the lifespan and how these can be explained with reference to the total amount of sleep and changes in a typical pattern of sleep (proportion of REM and NREM).

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

B *The proportion (or ratio) of NREM sleep to REM sleep increases as we age. In infants, NREM only accounts for 50% of their sleep, whereas NREM accounts for approximately 80% of an adult's sleep. The amount of sleep decreases as we age.*

the effects on consciousness (cognition, concentration and mood) of one night of full sleep deprivation as a comparison with effects of legal blood-alcohol concentrations.

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.

C *The cognitive deficits that are a result of a BAC of 0.05% is roughly equivalent to that of staying awake for 17 hours.*

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evidence-based interventions and their use for specific phobia with reference to: the use of short-acting anti-anxiety benzodiazepine agents (gamma amino butyric acid [GABA] agonists) in the management of phobic anxiety and relaxation techniques including breathing retraining and exercise (biological); the use of cognitive behavioural therapy (CBT) and systematic desensitisation as psychotherapeutic treatments of phobia (psychological); psychoeducation for families/supporters with reference to challenging unrealistic or anxious thoughts and not encouraging avoidance behaviours (social).

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

D *Benzodiazepines are short-acting anti-anxiety meditations that help by mimicking GABA's inhibitory effects.*

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models of behaviour change with reference to the transtheoretical model including the stages of pre-contemplation, contemplation, preparation, action and maintenance/relapse.

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

B *Because buying nicotine patches to reduce smoking isn't 'effective action' (smoking abstinence) in and of itself, this would be considered to be preparation for action.*

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models of behaviour change with reference to the transtheoretical model including the stages of pre-contemplation, contemplation, preparation, action and 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

C *A person who has quit smoking completely between one day and six months is considered to be in the action stage. The maintenance stage requires someone remaining free of the addictive behaviour for more than six months.*

consciousness as a psychological construct that varies along a continuum, broadly categorised into normal waking consciousness and altered states of consciousness (naturally occurring and induced)

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

B *Meditation involves the deliberate and intentional focusing of attention on one stimulus (such as the breath), meaning that this altered state of consciousness is induced.*

the typical characteristics of a mentally healthy person, including high levels of functioning, social and emotional well-being and resilience to life stressors

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

D *According to the WHO, mental health is defined as a state of well-being in which every individual realises his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community.*

the influence of psychological risk factors including rumination, impaired reasoning and memory, stress and poor self-efficacy

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.

C *Rumination involves dwelling on negative emotions without taking effective action.*

the relative influences of contributing factors to the development of specific phobia with reference to: gamma amino butyric acid (GABA) dysfunction, the role of stress response and long-term potentiation (biological); behavioural models involving precipitation by classical conditioning and perpetuation by operant conditioning, cognitive bias including memory bias and catastrophic thinking (psychological); specific environmental triggers and stigma around seeking treatment (social)

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

A *Classical conditioning is one method of precipitating specific phobias, and operant conditioning is one method of perpetuating specific phobias.*

evidence-based interventions and their use for specific phobia with reference to: the use of short-acting anti-anxiety benzodiazepine agents (gamma amino butyric acid [GABA] agonists) in the management of phobic anxiety and relaxation techniques including breathing retraining and exercise (biological); the use of cognitive behavioural therapy (CBT) and systematic desensitisation as psychotherapeutic treatments of phobia (psychological); psychoeducation for families/supporters with reference to challenging unrealistic or anxious thoughts and not encouraging avoidance behaviours (social).

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.

B *Avoidance behaviours are likely due to negative reinforcement, where an aversive stimulus (spiders) are taken away, leading to an increase in the likelihood of that behaviour in future.*

resilience as a positive adaption to adversity including the relative influence of protective factors with reference to: adequate diet and sleep (biological); cognitive behavioural strategies (psychological); support from family, friends and community (social)

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

D *Adequate sleep/diet are biological protective factors, cognitive behavioural strategies are psychological protective factors, and support from family, friends and community are social protective factors.*

the concept of cumulative risk	**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	*C* *The number of risk factors (particularly if there are multiple biological/psychological/social risk factors affecting a person) is a better predictor of a variety of mental health outcomes compared to any single risk factor.*

the influence of social risk factors including disorganised attachment, loss of a significant relationship and the role of stigma as a barrier to accessing treatment	**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.	*D* *Children with a disorganised attachment style behave in contradictory ways, indicating helpless efforts to elicit soothing responses from the attachment figure.*

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.

the distinction between predisposing risk factors (increase susceptibility), precipitating risk factors (increase susceptibility and contribute to occurrence), perpetuating risk factors (inhibit recovery) and protective factors (prevent occurrence or re-occurrence)	**Question 48** Jen's apparent genetic vulnerability to depression would be considered a _____ factor. **A.** protective **B.** predisposing **C.** perpetuating **D.** precipitating	*B* *Genetic vulnerability increases Jen's risk of also developing depression, however, it was not the trigger for her condition.*

the distinction between predisposing risk factors (increase susceptibility), precipitating risk factors (increase susceptibility and contribute to occurrence), perpetuating risk factors (inhibit recovery) and protective factors (prevent occurrence or re-occurrence)	**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	*D* *Unexpectedly breaking up with her partner is the likely trigger for Jen's mental state, and therefore is the precipitating risk factor.*

ethical implications in the study of, and research into, mental health, including informed consent and use of placebo treatments.	**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	*A* *If participants are not told the true nature and purpose of the study (including the possible use of placebo treatments) and sign a consent form, then informed consent is not being followed.*

Section B

VCAA Key Knowledge	Question	Answer guide
models of stress as a psychological process, with reference to Richard Lazarus and Susan Folkman's Transactional Model of Stress and Coping (stages of primary and secondary appraisal)	**Question 1** (4 marks) Goldie's Psychology teacher, Mr Wolf, has set two practice exams for homework, due in a couple of days. Mr Wolf also wants to see that students have self-marked the practice exams and written a revision list of topics that they need to work on. Goldie feels like she cannot cope, because she does not believe she can complete the practice exams and revision list in time. She has four SACs in the coming week, and also works casual shifts at Maccas. Describe the primary and secondary appraisals that Goldie and Mr Wolf are likely to make in this situation (that is, 'completing the practice exams and revision list').	**Answer:** • Goldie's primary appraisal: *Goldie is likely to evaluate the situation of having to complete the practice exams and revision list as significant/relevant to her, and therefore stressful.* • Goldie's secondary appraisal: *Goldie is likely to appraise her coping resources as being inadequate, as she does not have sufficient time to complete the practice exams/revision list, given her competing commitments of SAC study and shifts at Maccas.* • Mr Wolf's primary appraisal: *Mr Wolf is likely to evaluate the situation of setting Goldie the practice exams/revision list as positive/benign/irrelevant, and not stressful to him. (This is because he does not need to complete the practice exams/revision list as a teacher, and even if he did, they should be relatively easy for him to complete.)* • Mr Wolf's secondary appraisal: *Mr Wolf does not engage in secondary appraisal as there is no need to assess coping resources, given the practice exams/revision list are not stressful to him.* **Marking protocol:** One mark for each of the above points.

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.

mental health as a continuum (mentally healthy, mental health problems, mental disorders) influenced by internal and external factors that can fluctuate over time	**Question 2a** (4 marks) 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.	**Answer:** • *Jamie would likely be considered to be experiencing a mental disorder.* • *This is because his condition is leading to dysfunction; an inability for him to carry out normal activities such as going to school, as he would wish to.* • *His condition is also causing him distress; he experiences upsetting/unpleasant feelings when he encounters bees and is upset that his Year 12 studies have been affected.* • *His condition is also causing him to act in a deviant (abnormal) manner (running and screaming when he sees a bee) compared to the general population who may be mildly fearful of bees but not have such a severe anxiety response as Jamie.* **Marking protocol:** One mark for each of the above points.

the distinctions between stress, phobia and anxiety; variation for individuals with stress, phobia and anxiety on a mental health continuum	**Question 2b** (2 marks) What is the difference between specific phobia and anxiety?	**Answer:** • *A specific phobia is a persistent, intense, irrational fear of a specific object (such as bees in Jamie's case), whereas anxiety refers to the overall experience of worry or unease due to the feeling that something bad is about to happen.* • *Specific phobia is a diagnosable mental illness, whereas anxiety may not necessarily be indicative of a mental illness.* **Marking protocol:** Two marks for either of the above points. Note that a comparison term (such as 'whereas') must be used in order to be awarded any marks.

the distinctions between stress, phobia and anxiety; variation for individuals with stress, phobia and anxiety on a mental health continuum	**Question 2c** (1 mark) What is a similarity between specific phobia and anxiety?	**Answer:** • *Both the experience of anxiety and specific phobia may result in a physiological stress response (i.e. the fight-flight-freeze response).* • *Both the symptoms of anxiety and specific phobia may be characteristic of a mental disorder.* • *Both may create unpleasant psychological states.* **Marking protocol:** One mark for any of the above points, to a maximum of one.

the relative influences of contributing factors to the development of specific phobia with reference to: gamma amino butyric acid (GABA) dysfunction, the role of stress response and long-term potentiation (biological); behavioural models involving precipitation by classical conditioning and perpetuation by operant conditioning, cognitive bias including memory bias and catastrophic thinking (psychological); specific environmental triggers and stigma around seeking treatment (social)	**Question 2d** (2 marks) Define catastrophic thinking and provide an example of this from the scenario.	**Answer:** • *Catastrophic thinking (in the context of specific phobia) refers to irrational beliefs that the phobic stimulus (bees in Jamie's case) is far more dangerous than it actually is, or that worst-case scenario outcomes will occur as a result of encountering the phobic stimulus.* • *Jamie engages in catastrophic thinking when he believes that all bees are 'out to sting him and that he will die if he gets another sting'.* **Marking protocol:** One mark for each of the above points.

classical conditioning as a three-phase process (before conditioning, during conditioning and after conditioning) that results in the involuntary association between a neutral stimulus and unconditioned stimulus to produce a conditioned response, including stimulus generalisation, stimulus discrimination, extinction and spontaneous recovery	**Question 2e** (7 marks)
	Use the three-phase process of classical conditioning to explain how Jamie might have acquired his phobia.
		Answer:
		• *Before conditioning*
		  ○ *unconditioned stimulus (pain of bee sting) → unconditioned response (fear to pain of bee sting)*
		  ○ *neutral stimulus (bee) → no response*
		• *During conditioning*
		  ○ *repeated presentations of neutral stimulus (bees) and unconditioned stimulus (pain of bee sting) → unconditioned response (fear to pain of bee sting)*
		• *After conditioning*
		  ○ *conditioned stimulus (bees) → conditioned response (fear to bees)*
		
		Marking protocol:
		One mark for:
		• correct identification of the UCS (pain of bee sting).
		• correct identification of the UCR (fear to pain of bee sting).
		• correct identification of the CS (bees).
		• correct identification of the CR (fear of bees).
		• naming 'before conditioning' or 'pre-conditioning' and describing the correct elements in this phase (as per the first three dot points).
		• naming 'during conditioning' and describing the correct elements in this phase (as per the next two dot points).
		• naming 'after conditioning' or 'post-conditioning' and describing the correct elements in this phase (as per the last two dot points).
		
		Note that the unconditioned response and conditioned response are the same behaviour, so it is essential to state what stimulus is eliciting the behaviour. Note that all answers in brackets are required parts of the answer.

classical conditioning as a three-phase process (before conditioning, during conditioning and after conditioning) that results in the involuntary association between a neutral stimulus and unconditioned stimulus to produce a conditioned response, including stimulus generalisation, stimulus discrimination, extinction and spontaneous recovery	**Question 2f** (1 mark) 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?	**Answer:** • *Stimulus generalisation* **Marking protocol:** One mark for the above point.

interactions between specific regions of the brain (cerebral cortex, hippocampus, amygdala and cerebellum) in the storage of long-term memories, including implicit and explicit memories.	**Question 2g** (3 marks) What is the role of the amygdala and the hippocampus in the consolidation of the stinging incident when Jamie was five years old?	**Answer:** • *Jamie's amygdala would have encoded/consolidated the emotional content of the stinging incident, such as the pain/trauma of the stinging, into his long-term memory.* • *Jamie's hippocampus would have encoded/consolidated the episodic memory into his long-term memory, which could include contextual information such as the number of bees that stung him, where they stung him (the geographical and bodily locations), and how old he was when the incident occurred.* **Marking protocol:** One mark for each of the above points. One additional mark is awarded for correct references to Jamie's experience of being stung by a bee in both points.

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.

methods to retrieve information from memory or demonstrate the existence of information in memory, including recall, recognition, relearning and reconstruction

Question 3a (1 mark)
What method to retrieve information was used by both groups?

Answer:

- *(Free) recall*

Marking protocol:

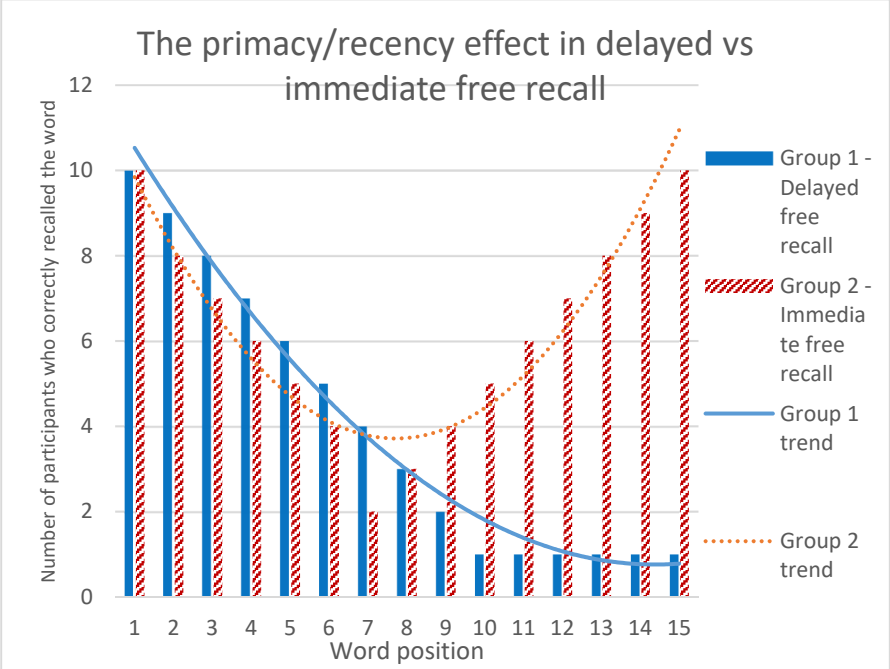
One mark for the above point.

the multi-store model of memory (Atkinson-Shiffrin) with reference to the function, capacity and duration of sensory, short-term and long-term memory

the factors influencing a person's ability and inability to remember information, including context and state dependent cues, maintenance and elaborative rehearsal and serial position effect

Question 3b (4 marks)
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.

Answer:



Marking protocol:

- One mark for a correct label for the y (vertical) axis: *Number of participants who correctly recalled the word.* Note that the data on this axis should not exceed 10 (or 100% of) participants in each group.
- One mark for a correct label for the x (horizontal) axis: *Word position/Word 1, Word 2, etc.*
  - Note: typically, the DV is represented on the x axis, but this is not 'traditionally' the way that the serial position effect is graphed – no marks are deducted for swapping the x and y axis in this case.
- One mark for a correct graph and trend line for Group 1 *(showing a progressive decrease in the number of words recalled, indicating a primacy but not a recency effect).*
- One mark for a correct graph and trend line for Group 2 *(showing a superior recall of words at the beginning and end of the list, indicating a primacy and recency effect).*
  - Note: A bar chart is the most appropriate graph for discrete data (such as the list of 15 words), however, if only a correct trend line is shown for each group, then no marks are deducted.
  - Note: The overall graph label should be "The Serial Position Effect/primacy/recency effect in delayed vs immediate free recall".

the multi-store model of memory (Atkinson-Shiffrin) with reference to the function, capacity and duration of sensory, short-term and long-term memory *the factors influencing a person's ability and inability to remember information, including context and state dependent cues, maintenance and elaborative rehearsal and serial position effect*	**Question 3c** (3 marks) How can the serial position effect be explained by Atkinson-Shiffrin's multi-store model of memory?	**Answer:** • *The primacy effect, where there is superior recall of information at the beginning of a list compared to the middle, can be explained by long-term memory. This is because this information has had enough time to be encoded into long-term memory.* • *The recency effect, where there is superior recall of information at the end of a list compared to the middle, can be explained by short-term memory. This is because information has not yet been displaced/decayed from memory (except in Group 1 who had an additional task to complete before recall).* • *The information in the middle of the list is likely displaced from short-term memory, and has not had enough time/rehearsal to be encoded into long-term memory, which is why these words are recalled the least.* **Marking protocol:** One mark for each of the above points.

changes in a person's psychological state due to levels of awareness, controlled and automatic processes, content limitations, perceptual and cognitive distortions, emotional awareness, self-control and time orientation.	**Question 4** (5 marks) Why is sleep considered an altered state of consciousness? Using key terms, describe five changes to a person's psychological state in your answer.	**Answer:** *Sleep is considered an altered state of consciousness because:* • *Levels of awareness are dramatically reduced during sleep (given that we are largely unresponsive to external stimuli), compared with normal waking consciousness.* • *Controlled and automatic processes are generally impossible to complete (perhaps except for generally routine, automatic processes during sleepwalking) during sleep, compared with normal waking consciousness.* • *Content limitations are reduced during sleep (for example, our ability to restrict what we pay attention to during our dreams is inhibited) compared with normal waking consciousness.* • *More perceptual distortions (for example, weird dreams) may occur during sleep, compared with normal waking consciousness.* • *More cognitive distortions (for example, an inability to remember the content of dreams) may occur during sleep, compared with normal waking consciousness.* • *There is typically a lowered level of emotional awareness (given that there is little consciousness of emotional experiences) during sleep, compared with normal waking consciousness.* • *The ability to maintain self-control is reduced during sleep (such as when we snore or drool), compared with normal waking consciousness.* • *An accurate estimation of the speed at which time passes (time orientation) is reduced during sleep, compared with normal waking consciousness.* **Marking protocol:** One mark for any of the above points, to a maximum of five.

observational learning as a method of social learning, particularly in children, involving attention, retention, reproduction, motivation and reinforcement	**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.	**Answer:** • *Attention: Monkey B must <u>focus</u> on the actions of Monkey A (who touched the four pictures in a certain order).* • *Retention: Monkey B must create a <u>mental representation</u> of the sequence of the four pictures, and <u>store</u> this in memory.* • *Reproduction: Monkey B needs to have the physical/mental <u>ability</u> to carry out the action of touching the four pictures in order.* • *Motivation: Monkey B must <u>want</u> to carry out the action.* • *Reinforcement: There needs to be the prospect of Monkey B being <u>rewarded</u> with a banana (which is indicated by Monkey A receiving a banana).* **Marking protocol:** One mark for each of the above points, ideally using the underlined key terms in your answer.

changes to a person's sleep-wake cycle and susceptibility to experiencing a circadian phase disorder, including sleep-wake shifts in adolescence, shift work and jet lag *the interventions to treat sleep disorders including cognitive behavioural therapy (with reference to insomnia) and bright light therapy (with reference to circadian phase disorders)*	**Question 6** (2 marks) Describe how bright light therapy can be used to treat sleep-wake shifts in adolescence.	**Answer:** • *Bright light therapy (BLT) uses very bright lights (much stronger than normal indoor light) to reduce the amount of melatonin (or increase the amount of cortisol) in the bloodstream, inducing wakefulness.* • *When used in the morning, BLT helps to shift the circadian rhythm to be closer to that of the normal day/night cycle, by allowing the adolescent to feel more awake in the morning, and sleepier at night (presuming dim/no light is seen towards the evening, to induce sleepiness).* **Marking protocol:** One mark for each of the above points.

the effects of brain trauma on areas of the brain associated with memory and neurodegenerative diseases, including brain surgery, anterograde amnesia and Alzheimer's disease *interactions between specific regions of the brain (cerebral cortex, hippocampus, amygdala and cerebellum) in the storage of long-term memories, including implicit and explicit memories.*	**Question 7** (1 mark) Name the specific part of the brain that would lead to anterograde amnesia of declarative memories, if removed.	**Answer:** • *The hippocampus* **Marking protocol:** One mark for the above point.

the reconstruction of memories as evidence for the fallibility of memory, with reference to Loftus' research into the effect of leading questions on eye-witness testimonies.	**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.	**Answer:** • *Our memories are reconstructive in nature because new (sometimes misleading) information can alter the encoding, storage and retrieval of our memories.* • *A leading question presupposes an answer, and this can act as a cue that may lead to the retrieval of incorrect information.* • *Furthermore, the misinformation presupposed by a leading question may be encoded and stored as an updated version of the memory.* **Marking protocol:** One mark for each of the above points.

methods to retrieve information from memory or demonstrate the existence of information in memory, including recall, recognition, relearning and reconstruction	**Question 9a** (6 marks) Distinguish between recall, recognition and relearning, with reference to an example of each.	**Answer:** • *Recall refers to the retrieval of memory with the use of few, if any, cues.* o *For example, short answer questions on an exam.* • *Recognition refers to the identification of correct information, amongst incorrect alternatives.* o *For example, multiple-choice questions on an exam.* • *Relearning refers to the process of learning previously learnt information, often operationalised through a savings score which measures how much faster it takes to relearn information that has been previously learned and forgotten.* o *For example, a saving of 50% if taking an hour to learn to play a piano piece perfectly when first learning the piece, then taking half an hour to relearn to play the same piece perfectly.* **Marking protocol:** One mark for each of the above points. Note that any appropriate example of each type of retrieval may be awarded marks.

methods to retrieve information from memory or demonstrate the existence of information in memory, including recall, recognition, relearning and reconstruction	**Question 9b** (2 marks) 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.	**Answer:** • *The recognition task is likely to lead to greater levels of retrieval than the recall task.* • *This is because recognition tasks provide more cues (such as the target answer) that allow for easier retrieval, as compared with recall (where few cues are provided).* **Marking protocol:** One mark for each of the above points.

the factors influencing a person's ability and inability to remember information, including context and state dependent cues, maintenance and elaborative rehearsal and serial position effect	**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.	**Answer:** • *Music may act as a context dependent cue if it is part of the environment that you study in.* • *Because music cannot be played in the exam room (given exam conditions), the lack of this context dependent cue may not generate sufficient cues to aid retrieval, which may decrease performance on the exam.* **Marking protocol:** One mark for each of the above points.

the effects of partial sleep deprivation (inadequate sleep either in quantity or quality) on a person's affective (amplified emotional responses), behavioural and cognitive functioning	**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.	**Answer:** *Andy may have:* • *amplified emotional responses* • *irritability* • *mood disturbances* • *being short-tempered* • *confusion* • *sadness* • *feelings of fatigue* **Marking protocol:** One mark for any of the above points, to a maximum of two. Any other reasonable emotional consequence of partial sleep deprivation should be awarded a mark.

evidence-based interventions and their use for specific phobia with reference to: the use of short-acting anti-anxiety benzodiazepine agents (gamma amino butyric acid [GABA] agonists) in the management of phobic anxiety and relaxation techniques including breathing retraining and exercise (biological); the use of cognitive behavioural therapy (CBT) and systematic desensitisation as psychotherapeutic treatments of phobia (psychological); psychoeducation for families/supporters with reference to challenging unrealistic or anxious thoughts and not encouraging avoidance behaviours (social).

Question 12
(10 marks)

Design a study to investigate the relative benefits of cognitive behavioural therapy (CBT) and breathing retraining in reducing the symptoms of specific phobia.

In your response,

- operationalise the independent and dependent variables, including definitions of the interventions in their use for the treatment of specific phobia,
- formulate a research hypothesis and justify your prediction,
- design, justify and apply an appropriate experimental research design, and
- discuss how evidence-based conclusions may be formed from your research design.

Sample answer:

- *The independent variable is the type of intervention, operationalised as an hour of cognitive behavioural therapy (CBT) each week for four weeks, an hour of breathing retraining sessions each week for four weeks, or no treatment.*
  - *CBT involves challenging maladaptive thoughts/feelings/behaviours that relate to the phobic stimulus. For example, if participants catastrophise about the fatality of encountering a phobic stimulus such as a spider, the therapist can discuss the realities of fatalities caused by spiders in the modern age of medicine and anti-venom, as well as the slim likelihood of spiders actively trying to bite the participant. An example of a behavioural intervention could include systematic desensitisation to reduce autonomic fear responses to spiders.*
  - *Breathing retraining involves educating the participant to monitor and adjust abnormal breathing patterns that arise when encountering (or simply thinking about) the phobic stimulus. Slow and steady breathing patterns help to activate the parasympathetic nervous system, allowing the participant to evoke a sense of calm when encountering their phobic stimulus.*

- *The dependent variable is phobic symptoms, operationalised as a response to a self-reported rating scale from 1-10; 1 indicating no phobic symptoms, 10 indicating severe phobic symptoms.*

- *It was hypothesised that CBT will result in greater reductions of phobic symptoms than breathing retraining, as well as when compared to no treatment. The rationale behind this prediction is that CBT encompasses a wide range of cognitive and behavioural strategies (which may even include breathing retraining – so it is important that the experimenters specifically exclude this practice in this instance).*
  - (Note: any reasonable hypothesis should be accepted, as long as it includes a prediction of the IV's influence on the DV, against one or more comparison groups.)

- *All participants of this study must be diagnosed with a specific phobia, according to a standardised diagnostic tool such as the DSM.*
- *The experimental design will be a matched-participants design, matched on self-reported and clinically diagnosed specific phobia type and severity. This will be employed to minimise individual participant differences without introducing order effects, which may not be fully controlled even with counterbalancing, due to the potential cumulative beneficial effect of any prior treatment. Utilising an experimental design that controls for these extraneous variables will help to support the validity of conclusions made. Once a set of three participants (for the three groups) have been matched, random allocation will be used to divide these into the three groups, as outlined below.*

- *Group 1 will undertake CBT for an hour each week, for four weeks. Pre- and post-tests of phobic symptoms will occur (i.e. before and after CBT) to measure relative gains, if any.*
    - *Standardised procedures will be adopted to ensure that breathing retraining techniques are not practiced during CBT (particularly given that breathing retraining can be part of the behavioural component of CBT).*
- *Group 2 will undertake breathing retraining for an hour each week, for four weeks. Pre- and post-tests of phobic symptoms will occur (i.e. before and after breathing retraining) to measure relative gains, if any.*
    - *Standardised procedures will be adopted to ensure that CBT techniques are not practiced for the duration of the experiment, and that, as far as practicable, only a biological intervention to reduce physiological arousal is taking place.*
- *Group 3 will not undertake any intervention but will be monitored with tests of phobic symptoms across the same time periods as Group 1 and Group 2, as an additional basis for comparison. This will help to confirm if any gains made by Group 1 or 2 is due to the intervention, and not due to time decreasing phobic anxiety.*
- *Standardised procedures should be adopted to ensure that participants from Groups 1-3 do not encounter their phobic stimulus for the duration of the experiment, unless it is part of a therapy (such as systematic desensitisation as a CBT intervention).*

- *Evidence-based cause-and-effect conclusions may be formed through this research design because it utilises an experimental method that includes random allocation between Groups 1, 2 and 3. If the results are statistically significant (i.e. that there are statistically large differences in mean reductions in phobic symptoms between the CBT versus breathing retraining versus control groups), then it would be possible to support the hypothesis that CBT results in greater reductions in phobic symptoms compared to breathing retraining or no treatment.*

Marking protocol on next page…

Marking protocol:

This answer is globally marked (i.e. an overall mark is awarded for the entire answer). The following criteria could be used to assess a response:

8-10 High	• High-level identification and explanation of formal psychological terminology relevant to the question (including detailed definitions of breathing retraining, as well as both cognitive and behavioural components of CBT) • High-level use of appropriate psychology terminology (regarding CBT, breathing retraining, phobia and research methods) • Detailed and comprehensive discussion of relevant psychological information, ideas, concepts, theories and/or models and the connections between them (including the application of CBT and breathing retraining in the context of specific phobia, also ensuring that breathing retraining is not included in CBT in this case, to prevent confounding variables) • High-level analysis and evaluation of data, methods and scientific models (including an appropriate operationalisation of IV and DV, and an identification, explanation and justification of an appropriate experimental research design) • Detailed drawing of evidence-based conclusions and explanation of limitations of conclusions (including a discussion of how evidence-based conclusions could be made in the experimental design described)
4-7 Medium	• Satisfactory identification and explanation of formal psychological terminology relevant to the question • Satisfactory use of appropriate psychology terminology • Satisfactory discussion of relevant psychological information, ideas, concepts, theories and/or models and the connections between them • Satisfactory analysis and evaluation of data, methods and scientific models • Satisfactory drawing of evidence-based conclusions and explanation of limitations of conclusions
1-3 Low	• Limited identification and explanation of formal psychological terminology relevant to the question • Limited use of appropriate psychology terminology • Limited discussion of relevant psychological information, ideas, concepts, theories and/or models and the connections between them • Limited analysis and evaluation of data, methods and scientific models • Limited drawing of evidence-based conclusions and explanation of limitations of conclusions
0 No score	• Response does not demonstrate any of the above criteria

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					