

Trial Examination 2020

VCE Psychology Units 3&4

Written Examination

Suggested Solutions

SECTION A – MULTIPLE-CHOICE QUESTIONS

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

Neap Education (Neap) Trial Exams are licensed to be photocopied or placed on the school intranet and used only within the confines of the school purchasing them, for the purpose of examining that school's students only. They may not be otherwise reproduced or distributed. The copyright of Neap Trial Exams remains with Neap. No Neap Trial Exam or any part thereof is to be issued or passed on by any person to any party inclusive of other schools, non-practising teachers, coaching colleges, tutors, parents, students, publishing agencies or websites without the express written consent of Neap.

Question 1 A

The central nervous system is responsible for processing information about both the body's internal and external environments. It relies on both the autonomic and somatic divisions of the peripheral nervous system, to relay information from the internal and external environments (respectively) to process and respond to this information by initiating changes in various organs, glands and muscle activity.

Question 2 C

A spinal reflex is a result of a synaptic exchange between firstly a sensory neuron and interneuron in the spinal cord, followed by an interneuron and a motor neuron in order to trigger the response.

Question 3 C

As a result of the memory consolidation process, a neuron can sprout (grow) additional dendrites, which in turn creates additional receptors sites that lead to a greater uptake of neurotransmitters through the long-term potentiation (LTP) mechanism.

Question 4 C

When an excitatory neurotransmitter binds with a postsynaptic receptor, it makes the postsynaptic neuron more likely to reach an action potential threshold and fire. If the excitatory neurotransmitter delivers a weak signal or a lack of input to the postsynaptic neuron, then it will not reach an action potential threshold; this can be a part of the long-term depression (LTD) process if it repeatedly occurs.

Question 5 B

In order for gamma-amino butyric acid (GABA) to have an inhibitory effect on a neuron, it must first be released from the axon terminal before it crosses the synapse and potential-binds with a receptor site on the postsynaptic cell.

Question 6 C

After a distress signal has been sent from the amygdala (the fear center of the brain) to the hypothalamus, the sympathetic nervous system will then be activated which will trigger the release of adrenaline by the adrenal gland. This will trigger the activation of the fight-flight-freeze response as part of the first wave of a stress response and potentially release the stress hormone cortisol in the second wave of a sustained response to a stressor.

Question 7 C

Tear gland activity would have been suppressed during the fight-flight-freeze response in order for the resources that regulate this activity to be diverted to more essential physiological systems. This will allow those systems to increase their activity to help Jess and Jun escape the threat of the bees; respiration rate, blood pressure and the release of additional sugar and fats into the bloodstream would all aid their escape.

Question 8

B

The sympathetic nervous system relaxes the bladder when the body is under threat so that the resources used to regulate its activity can be diverted to more essential physiological systems in order to best respond to the threat. In some cases this may lead to accidental urination.

Question 9 B

Jess and Jun would have been experiencing the countershock stage of the alarm reaction, as the sympathetic nervous system had triggered their fight-flight-freeze response in order to trigger the immediate response of sprinting towards their tents.

Question 10 D

Parkinson's disease is caused by the degeneration of dopamine-producing neurons in the substantia nigra, which results in a lack of input to motor centres of the brain.

Question 11 B

Parkinson's disease can be best explained by a lack of dopamine messages being delivered to the motor centres of the brain, which results in an impairment in motor control.

Question 12 B

Rani's response to her initial diagnosis of the COVID-19 virus would most likely be classified as distress as it was a negative psychological response to a stressor. Eustress is a positive responses, a benign source of stress is not a response and acculturative stress has a cultural origin, which is not applicable in this case.

Question 13 B

Rani's evaluation of the level of significance of her enforced absence from school following her discussion with the member of the school's leadership team is an example of a reappraisal made during a secondary appraisal. This is because it reflects an adjustment to Rani's evaluation of the initial significance of her stressor made during the primary appraisal that has since been re-evaluated following the conversation with her leadership team. Countershock would not be applicable in this case as she is no longer significantly stressed about her diagnosis and the impact on her VCE students. The anxiety that Rani experienced is a form of distress, as it is a negative psychological response. This rules out eustress, which is a positive psychological response to a stressor.

Question 14 A

Rani's high level of anxiety, which was triggered by the thought that she had spread the virus to several of her students, was made during her primary appraisal, as it was the initial evaluation of the significance of her stressor. She has not reached a state of exhaustion in relation to this stressor.

Question 15 B

Rani was using an approach coping strategy as she was directing her energy towards the source of the stressor – in this case, dealing with the stress of supporting her VCE students. Exercise is not a coping strategy, though it may be used as part of one, and resistance is not a coping strategy, as it is a response that the body makes in its natural defence.

Question 16 A

Isabelle would most likely use free recall because of the lack of cues to help her recall this information due to the length of time since the event.

Question 17 B

The release of adrenaline as a result of the stress response would have triggered the release of noradrenaline, which would have activated the amygdala to encode the level of excitement of the day Isabelle received her horse.

Question 18 B

Receiving the horse in this case is a life event as it is a stressful event that will require Isabelle to adapt to the demands of caring for her horse. More specifically, it is a type of eustress that will require some social readjustment.

Question 19 B

Explicit memories, such as Isabelle's memory of receiving the horse for her thirteenth birthday, are stored in the cerebral cortex.

Question 20 A

The amygdala would be involved in the retrieval of the emotional details of the memory. The hippocampus would be involved in the retrieval of the contextual details of the event (the 'where' and 'when'). The cerebellum is merely involved in procedural memories, which is not relevant to this scenario.

Question 21 C

In terms of neural plasticity, LTD can best be described as the result of a repeatedly lowered level of input to postsynaptic neurons, which weakens the strength of the neural pathways. Classical conditioning would strengthen the neural pathways, not weaken them. Synaptic pruning does not explain the depotentiation of the activity at the synaptic level.

Question 22 D

In Pavlov's classical conditioning experiment, the conditioned response was the salivation, which is regulated by the autonomic nervous system.

Question 23 C

For classically conditioned responses, stimulus generalisation can result in adaptive behaviour. For example, if a dog is attacked by a brown snake it may be conditioned to avoid all snakes, which will enhance its survival. It can also result in maladaptive behaviour. For example, if a child nearly drowns at the beach the child may be conditioned to avoid all water.

Question 24 B

The antecedent for Claudia's behaviour one hour before the close of the bidding process is receiving the alert on her phone. This results in her behaviour of placing a bid on the item that is 50% larger than the current asking price. The reminder was set when she originally viewed the item, and the alarm is the antecedent that reminds her to place the bid.

Question 25 C

For the occasions when Claudia is outbid on an item, her behaviour is unlikely to change due to the absence of a consequence, as she is not being punished with an undesirable consequence. While Claudia has wasted time in the scenarios when she is outbid, this is not an obvious consequence and, as more than half of her bids are successful in purchasing the desired item, her behaviour is unlikely to change.

Question 26 D

Despite closely observing Claudia's online purchasing behaviour, Gemma is unlikely to buy items from eBay due to her lack of motivation to mimic her daughter's behaviour. Because of her preconceptions of the risks of using eBay and the possibility of receiving faulty products, she is motivated to continue shopping offline.

Question 27 C

Glutamate plays a key role in the formation of explicit memories such as a semantic memory. The other types of memory given in the answer options involve neurotransmitters other than glutamate. These neurotransmitters fall outside the scope of the VCE Psychology syllabus.

4

Question 28 C

In this case, glutamate will have an excitatory effect on a postsynaptic neuron when it binds with its complimentary AMPA/NMDA receptor. This makes these cells more likely to fire, which plays a key role in LTP.

Question 29 B

When glutamate is released from a presynaptic axon terminal into the synapse, it binds with its complementary AMPA and NMDA receptors, located on the dendrites of the postsynaptic cells.

Question 30 C

Observational learning occurs when the learner observes both a model's behaviour and the consequence that follows that behaviour. The desirability of the observed consequence will determine the likelihood that the observer will replicate that behaviour in the future.

Question 31 B

The conditioned stimulus is Milo hearing the sound of the myna bird's squawk, which reflexively triggers Milo to scurry towards safety and shake.

Question 32 A

The unconditioned response is Milo's startled response, which is naturally triggered by the swooping action of the myna bird (the unconditioned stimulus).

Question 33 C

Irritability is an emotional or affective symptom of sleep deprivation. An example of a cognitive symptom would be difficulty concentrating, a behavioural symptom could be experiencing occasional microsleeps, and a physiological symptom could be difficulty focussing the eyes.

Question 34 C

When the effects of the two standard drinks have reached his brain, in comparison to his normal level of functioning (with a BAC of 0.0), Vlad is most likely to have experienced an enhanced mood as he is more relaxed and more confident in a social context. His cognition and concentration would decline, as alcohol acts as a depressant by slowing down central nervous system activity.

Question 35 D

An adolescent will experience REM 4-6 times in a typical night; and for the majority of the 4-6 sleep-cycles, NREM Stages 1 and 2 can be experienced 10 or more times per night (twice for the majority of the sleep cycles with 4-6 cycles). NREM Stage 4 will typically be experienced on two occasions, during the first 2 sleep cycles.

Question 36 A

An individual's time orientation would tend to be most accurate when the individual is experiencing selective attention (during a normal waking consciousness). The other three options are examples of an altered state of consciousness, which would impair time orientation.

Question 37 D

Elderly people tend to sleep 6–7 hours per night and approximately 80% of this is NREM sleep, which is a similar proportion to adults/adolescents. However, given they average 1–3 hours more sleep per night, elderly people would spend the least amount of time in NREM sleep.

Question 38

B

According to the restorative theory of sleep, the motor centres of the brain are activated during REM sleep, which assists with the consolidation of procedural memories. The evolutionary theory of sleep applies to the adaptation of the circadian sleep–wake patterns to evolve in a manner that enhances the survival of a species, and thus does not apply to the role of sleep in the consolidation of memories.

Question 39 C

The independent variable (IV) of this experiment is whether the participants used light-filtering goggles during their night shifts. The IV was manipulated to determine its effect on the dependent variable (DV), which was the levels of sleepiness of the participants, measured by the self report and the scores on the continuous performance test.

Question 40 C

A confounding variable is a variable other than the IV that systematically affects the DV. Given that the experiment was not counterbalanced, the accumulating effects of partial sleep-deprivation caused by night-shift work may have an impact on performance and sleepiness in the second half of the experiment and could confound the results, which is an order effect. The other three options relate more to the reliability of the data and the generalisability of the findings.

Question 41 B

The subjectivity of the use of self-reporting would diminish the validity of the data generated, as this relates to the accuracy of the method used for data collection. Reliability refers to the consistency of the data, which is determined via the replication of experimental procedures.

Question 42 D

There was no form of allocation to groups, given the use of a repeated-measures research design. The use of the term convenience applies to the method of sampling which involves the selection of participants from the population of interest; allocation refers to the distribution of the sample participants to either a control or experimental condition.

Question 43 C

Anxiety involves worrying that an undesirable event is about to happen, as in **C**. Anxiety can lead to adaptive or maladaptive behaviours, so **A** is incorrect. **B** refers to stress and **D** refers to a phobia.

Question 44 B

According to the National Statement on Ethical Conduct in Human Research, researchers of mental disorders should follow informed-consent procedures. Participants should be informed of their rights, including their right to withdraw prior to the commencement of the research. In some cases, the human research ethics committee can grant approval for research to occur without the informed consent of participants. The participants would not be informed of their allocation to a placebo or experimental group until the experiment has concluded in order to eliminate the impact of expectations on their behaviour. If the participants are mentally capable of understanding the experimental procedures, then the researchers are required to provide these details to participants.

Question 45 B

Systematic desensitisation is a type of behavioral therapy used to treat phobias. It pairs a relaxation strategy with exposure to progressive levels of the fear-evoking stimulus.

Question 46 A

Encouraging family members to challenge avoidant behaviour and unrealistic thoughts about a phobic stimulus is a key feature of psychoeducation, which provides a social form of support to individuals that are suffering from a phobic disorder.

Question 47 B

The researchers used a case study in order to provide an in-depth approach to gathering data from the three principals. There were no variables tested under controlled conditions, hence it is not an experiment.

Question 48 A

The researchers are gathering original (primary) data from the three principals, which are detailed (qualitative) in nature based on the responses to the interview questions.

Question 49 C

An advantage of the form of data generated by the researchers is that it could provide ideas for further research. Qualitative data is difficult to summarise and analyse, and the small sample size will diminish the reliability of the data.

Question 50 B

A period of temporary stress is an indicator of a mental health problem that is characterised by a temporary impairment in daily functioning. Examples for a principal may include social functioning, sleep patterns and other similar activities. According to the mental health continuum, this principal would most likely be classified as suffering from a mental health problem.

SECTION B

Question 1 (5 marks)

a.	Both a conscious response and an unconscious response involve activity of the somatic and central nervous systems.								
	Both	also involve activity of the sensory neurons, interneurons and motor neurons.	1 mark						
b.	i.	spinal reflex/reflex arc	1 mark						
	ii.	As a protective response, the movement of the hand off the cup prevents excessive tissue damage from the heat of the cup; the more rapid the reflexive movement (in comparison to a conscious response), the lesser the potential for tissue damage.	1 mark 1 mark						
Que For	stion 2 examp	2 (4 marks) le:							
The the T	Genera Transac	al Adaptation Syndrome is a biological model; ctional Model of Stress and Coping is a psychological/cognitive model.	1 mark 1 mark						
The the 7	Genera Transac	al Adaptation Syndrome does not cater for individual differences; ctional Model of Stress and Coping does cater for individual differences	1 mark						
in ho	ow we	respond to a threat.	1 mark						
Que The affec both	stion 3 benefit t beha during	B (2 marks) ts of the experiment (providing evidence of how environmental events viour) were outweighed by the harm inflicted on Little Albert, g the experiment when he was distressed and after the experiment when	1 mark						
Wat	son and	d Rayner failed to extinguish the negative consequences of his conditioning.	1 mark						
Que	stion 4	(9 marks)							
a.	Thro there	bugh repeated practice of Molly's modified ball-drop technique,	1 mark						
	mem due t	to the increased responsiveness of the postsynaptic neurons that form part	1 mark						
	of th	e memory trace due to repeated high-frequency input from the presynaptic neurons.	1 mark						
		<i>1 mark for a clear link to the repetition of</i> <i>1 mark for discussing the strengthening of neura</i> <i>1 mark for describing the potentiation process via the high-frequ</i>	l pathways. lency input.						
b.	An i of th	mplicit memory would be the procedural memory e necessary movements (the grip and the release of the ball) which are	1 mark						
	unco	onsciously recalled when Molly is preparing to kick the ball.	1 mark						
	An e of or direc	explicit memory would be the semantic memory the of the instructions, such as placing the laces of the ball in the intended kicking extion, which Molly consciously recalls.	1 mark 1 mark						
c.	Moll the c	y could practice with an object used during the game, such as a Sherrin football, lub jumper, the same football boots or a similar object. This would encode							
	the n whic	nemory using the object as a cue, h would help her retrieve the memory when using the same cue during the game.	1 mark 1 mark						

The patients are showing symptoms of anterograde amnesia, 1 mark a. and, thus, are having difficulty encoding explicit memories. 1 mark b. The use of a control group enabled the researchers to establish a baseline group for comparison purposes in order to determine the effectiveness of the treatment. 1 mark In this case, the researchers could learns whether the brain-training exercises were improving the symptoms of dementia by comparing the results of the experimental group in the STM test to the results of the matched group who were not exposed 1 mark to the brain-training exercises. Validity refers to how accurately the assessment tool used in the experiment measures c. the dependant variable. 1 mark In this case, the use of a computer to measure the speed and accuracy of cognition is an objective measure that would appear to provide a high degree of validity. 1 mark d. For example: It is hypothesised that patients that have been diagnosed with Alzheimer's disease (in the last two years) who have had a daily regime of 30-minute use of brain-training exercises will have a slower rate of cognitive decline (as measured by the speed and accuracy of cognition by a computer) than patients with a similar level of dementia who do not use the brain-training exercises. 3 marks *1 mark for identifying the population. 1* mark for identifying the dependant variable (rate of cognitive decline). 1 mark for identifying the independant variable (use of brain-training exercises). **Question 6** (11 marks) a. The information will need to be accessed/retrieved from long-term memory (LTM) 1 mark and reconstructed back into the conscious short-term memory (STM) to conventionalise the retrieval of the incident. 1 mark The reconstruction of the event back into STM could create source confusion, 1 mark b. as Zahara may have combined material from a leading question from the manager with the original details stored into her memory. Thus the information from the two sources could be combined, creating an unreliable memory of the incident. 1 mark Any one of (cognitive effects): c. shortened attention span impaired memory diminished creativity irrational thought impaired decision-making process 1 mark Any one of (behavioural effects): restlessness impaired motor skills or hand-eye coordination

• sleep inertia

Ouestion 5 (9 marks)

• reaction time slowed

d.	A circadian phase disorder occurs when there is a mismatch between an individual's sleep-wake cycles and their desired sleep-wake patterns.	1 mark
	Shift work that occurs during times that an individual normally sleeps, such as night-shift work, can disrupt the circadian sleep-wake cycle, as humans have evolved to sleep during the night and be awake during the day. Thus an individual who works a night-shift will typically have difficulty falling asleep and remaining asleep during the day and then maintaining a normal waking consciousness during the night-shift.	1 mark
e.	Exposing the shift workers to a high intensity (but safe level) of bright light just prior to their evening shift (late afternoon/early evening)	1 mark
	will help suppress the release of melatonin and reset their body clock.	I mark
	This will help them to remain awake during the night-shift and then fall asleep during the early morning at the conclusion of their shift.	1 mark
Ques	tion 7 (12 marks)	
а.	In comparison to a self-report, an electroencephalograph (EEG) provides more objective data in terms of changes in level of brain activity that could be used to construct evidence of a person's state of consciousness.	1 mark
	A self-report generates subjective data that will make it more difficult for researchers to construct evidence of a person's state of consciousness.	1 mark
b.	Consciousness cannot be directly measured, and a state of consciousness can only be inferred or constructed from either physiological or psychological indicators.	1 mark
	During the mediation session, the participant may shift between a normal waking and an altered state of consciousness. As their level of awareness varies between these two broad states of consciousness, it would be difficult to determine their state of consciousness at a given point in time; thus, their consciousness can only be inferred from the EEG readings and other physiological or psychological indicators.	1 mark
c.	During a meditative state, time orientation tends to be less accurate than time orientation during a normal waking consciousness.	1 mark
	A meditative state is an altered state of consciousness in which the level of awareness	
	is distinctly different from a normal waking consciousness, which would include	
	the amount of time that had elapsed since the onset of the meditative period.	1 mark
d.	The experimental design is repeated measures.	1 mark
	An advantage of this design is that it would eliminate the participant-related variables that other experimental designs, such as an independent-groups research design, would	1
	An axample of such a variable in this case would be prior experience with meditation	1 mark
	An example of such a variable in this case would be prior experience with meditation.	1 IIIdI K
e.	The sampling method is convenience sampling.	1 mark
	An advantage of this sampling method is that using readily available participants is more time- and cost-effective than random or stratified sampling.	1 mark
	A limitation of this sampling method is that the sample may not be representative of the population of interest, which will diminish the reliability and generalisability of the results.	1 mark

Question 8 (8 marks)

	Inst	ead, it places the mental condition of the healthcare workers on a continuum that	1 mark
L	4	and of	1 mark
D.	Any	one of:	
	•	a high level of daily functioning: the ability of the healthcare workers to effectively meet the demands of their everyday life, such as their workplace demands, interpersonal relationships or maintaining their involvement in hobbies	
	•	social and emotional well-being: the ability of the healthcare workers to regulate their emotions and maintain positive interactions with others	
	•	resilience: the ability of the healthcare workers to cope and bounce back from stressors and restore positive functioning	
			2 marks
		1 mark for identifying the ch 1 mark for a suitable of	aracteristic. explanation.
c.	Any	one of:	
	•	A healthcare worker could work on maintaining good sleep hygiene in order	

- to gain the restorative effects that REM sleep in particular provides.
- A healthcare worker could ensure that they maintain a good diet that has a balance of essential vitamins and minerals to enhance wellbeing and abstinence/moderation from alcohol/illicit drugs.
- A healthcare worker could exercise, which will help flush out stress hormones, release endorphins and help provide a sense of wellbeing.

2 marks

1 mark for identifying the protective factor. 1 mark for a suitable explanation.

d.	By using avoidant coping, the healthcare workers direct their energy away from	
	the source of their stress.	1 mark
	For instance, they may turn to alcohol or vent to their partners as a measure of coping.	1 mark

Question 9 (10 marks)

Behavioural model – development of a phobia of needles:

According to the behavioural model, phobias are acquired through environmental interactions. The phobias are generally precipitated through classical conditioning and perpetuated through operant conditioning. The origin of the phobia often occurs during childhood, when the child is unable to rationalise a traumatic experience that precipitates the phobia. The child may have been immunised and thus saw the injection needle, which originally acted as a neutral stimulus. The child would then have had an injection, an unconditioned stimulus that caused pain and terror, which was the unconditioned response. If this experience was repeated on a few occasions then eventually the mere sight or thought of a needle may have acted as a conditioned stimulus that triggered a fear response (the conditioned response). This may have been perpetuated through operant conditioning. For example, at secondary school on the day before an immunisation day, the child may have become highly anxious and acted out emotionally. If their parent allowed the child to take the day off to avoid the injection, this may have negatively reinforced the phobic condition.

Treating the phobia using a behavioral approach:

Systematic desensitisation could be used to treat this phobia with a behavioural approach. In this approach, the patient would learn a relaxation technique such as breathing retraining, which could be used to provide a calming influence. Then the patient could create a fear hierarchy of approximations of the fear-evoking stimulus. The next step involves exposing the patient to successive levels of the fear hierarchy by starting at the bottom of the hierarchy (for example, looking at a picture of a needle) and then using the breathing retraining practices in order to reduce the fear response. Once the fear response is reduced to an adaptive level, the patient can move to the next step of the hierarchy (such as watching a film of someone having an injection) and then repeating the use of the relaxation strategy. This would continue via systematic exposure to levels of the fear-evoking stimuli until eventually the patient can have an injection without it triggering an excessive fear response, as the phobia has been extinguished.

Cognitive model – development of a phobia of needles:

According to the cognitive model, phobias result from the thought processes that influence our feelings and behaviour. If thought processes are distorted or irrational, then this can precipitate a phobia due to the intensity of the emotions triggered by these thought processes, which can result in dysfunctional behaviour in the presence of a phobic stimulus.

According to the cognitive model, phobias can be explained by the memories, beliefs, attitudes and expectations that can contribute to the development of a cognitive bias. A cognitive bias involves an irrational judgment about the phobic stimulus, resulting in errors of judgment and impaired decision-making. This mistaken thinking can be a result of underlying motivational factors and subjective interpretation of situations, which can take multiple forms:

- Memory bias: Memory bias involves the memory of an event being significantly more distressing that it actually was. This is a result of a distorted or exaggerated recollection of previous experiences (selective memory). Memory recall will tend to focus on negative information from the past rather than positive or neutral information. Thus, our reconstruction of past events can fit with our current negative beliefs (consistency bias) or past experiences can be recalled disproportionately with reality (change bias). For example, the patient in this case may recall a significant amount of bleeding from a primary school immunisation, when in actual fact there was no blood and the child has experienced source confusion with another memory.
- Catastrophic thinking: Catastrophic thinking involves overestimating a situation and predicting the worst possible outcome, underestimating the ability to cope with the situation and feeling a heightened sense of helplessness. For example, the patient in this case might think 'If I have an injection, the pain could be so intense that it will cause me to faint'. Thus, catastrophic thinking can contribute to and perpetuate a phobia.
- Attentional bias: Attentional bias occurs when a person is hypervigilant to signs of the presence of their phobic stimulus, which can result in them mistaking other relevant information for misreading stimuli. For example, the patient in this case may just focus on the length of the injection needle rather than focusing on how thin it is and how, due to it being thin, the injection should not hurt very much.

Treating the phobia using a cognitive approach:

Cognitive behavioural therapy (CBT) would be used to treat this phobia with a cognitive approach. The cognitive component of CBT endeavors to replace the negative thoughts and consequential behaviours that perpetuate the phobia and replace them with positive thoughts. The behavioural component might involve the teaching and application of a relaxation technique such as breathing retraining in order to help the patient cope with fearful situations. The patients will initially be encouraged to identify their anxiety-related thoughts (the triggers) that reflect their cognitive biases, as well as their maladaptive behaviours such as avoidance of the phobic stimulus that leads to their maladaptive behaviour. A mental health clinician may encourage a patient to gather information about their phobic stimulus that results from a cognitive distortion. For example, the patient in this case may find it useful to know that, if they can relax when they are about to have an injection, then the pain from the needle will be relatively mild and will only last for a few seconds.

Marking guide

Very high (9–10 marks)

The student has:

- provided a highly detailed explanation of the behavioural model in terms of the precipitating factors that lead to the development of a phobia via classical conditioning and the perpetuation of a phobia via operant conditioning;
- provided a highly detailed explanation of the use of systematic desensitisation for the treatment of a phobia;
- provided a highly detailed explanation of the cognitive approach to the development of a phobic condition in terms of the cognitive bias;
- provided a highly detailed explanation of the use of CBT in the treatment of a phobia; and
- accurately used the language of each learning theory.

High (7–8 marks)

The student has:

- provided a detailed explanation of the behavioural model in terms of the precipitating factors that lead to the development of a phobia via classical conditioning and the perpetuation of a phobia via operant conditioning;
- provided a detailed explanation of the use of systematic desensitisation for the treatment of a phobia;
- provided a detailed explanation of the cognitive approach to the development of a phobic condition in terms of the cognitive bias;
- provided a detailed explanation of the use of CBT in the treatment of a phobia; and
- accurately used the language of each learning theory.

Medium (5–6 marks)

The student has:

- provided a limited explanation of the behavioural model in terms of the precipitating factors that lead to the development of a phobia via classical conditioning and the perpetuation of a phobia via operant conditioning;
- provided a limited explanation of the use of systematic desensitisation for the treatment of a phobia;
- provided a limited explanation of the cognitive approach to the development of a phobic condition in terms of the cognitive bias;
- provided a limited explanation of the use of CBT in the treatment of a phobia; and
- accurately used the language of each learning theory.

Low (3–4 marks)

The student has failed to address each of the four criteria (the two forms of acquisition and the two forms of treatment) in terms of the following:

- provided a limited explanation of the behavioural model in terms of the precipitating factors that lead to the development of a phobia via classical conditioning and the perpetuation of a phobia via operant conditioning;
- provided a limited explanation of the use of systematic desensitisation for the treatment of a phobia;
- provided a limited explanation of the cognitive approach to the development of a phobic condition in terms of the cognitive bias;
- provided a limited explanation of the use of CBT in the treatment of a phobia; and
- accurately used the language of each learning theory.

Very low (0–2 marks)

The student has only addressed one or none of the four criteria (the two forms of acquisition and the two forms of treatment) in terms of the following:

- provided a limited explanation of the behavioural model in terms of the precipitating factors that lead to the development of a phobia via classical conditioning and the perpetuation of a phobia via operant conditioning;
- provided a limited explanation of the use of systematic desensitisation for the treatment of a phobia;
- provided a limited explanation of the cognitive approach to the development of a phobic condition in terms of the cognitive bias;
- provided a limited explanation of the use of CBT in the treatment of a phobia; and
- accurately used the language of each learning theory.