

Trial Examination 2021

Suggested solutions

QCE Psychology Units 3&4

Paper 1

SECTION 1 – MULTIPLE-CHOICE QUESTIONS

	A	В	C	D
1.		\bigcirc	0	
2.	•	\bigcirc		\bigcirc
3.	•	\bigcirc		\bigcirc
4.		\bigcirc		\bigcirc
5.	•	\bigcirc		\bigcirc
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9.		\bigcirc		\bigcirc
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15.	0	\bigcirc	•	\bigcirc

	A	В	С	D
16.		•	0	\bigcirc
17.		\bigcirc		\bigcirc
18.		\bigcirc		\bigcirc
19.		\bigcirc		\bigcirc
20.		\bigcirc		\bigcirc
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22.		\bigcirc		\bigcirc
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24.		\bigcirc		•
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26.		\bigcirc	0	\circ
27.		\bigcirc		•
28.		\bigcirc		•
29.				\bigcirc
30.		\bigcirc		\bigcirc

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QUESTION 1 D

D is correct. The spinal cord (along with the brain) is part of the central nervous system (CNS). **A** is incorrect. The parasympathetic nervous system is part of the autonomic nervous system (ANS). **B** and **C** are incorrect. The somatic nervous system (SNS) and ANS are both part of the peripheral nervous system.

QUESTION 2 A

The visual cortex in the occipital lobe is a contralateral structure, thus the left side of the occipital lobe processes visual stimuli that is registered on the right side of the retina and vice versa. **B** and **D** are incorrect. The parietal lobe processes tactile information (for example, touch, pain, pressure and temperature on the skin). **C** is incorrect. The right occipital lobe processes visual information from the left side of the retina.

QUESTION 3 A

A is correct. Broca's area is responsible for the production of clear, fluent and grammatically correct speech and plays a role in processing the grammatical aspects of the speech of other people. B is incorrect. Wernicke's area is responsible for interpreting the meaning of the language used in sentences. C is incorrect. Geschwind's territory connects Broca's area and Wernicke's area to enable these speech areas of the brain to work together. D is incorrect. Verbal stimuli is detected in the auditory cortex.

QUESTION 4 C

C is correct. The hypothalamus activates the hypothalamic-pituitary-adrenal (HPA) axis when the body is under stress, which results in the adrenal gland releasing stress hormones in order to arouse the body. A is incorrect. The thalamus regulates attention and the transfer of sensory and motor information. B is incorrect. The amygdala is responsible for the initial detection of a threat and relaying messages to the hypothalamus to activate the stress response. D is incorrect. The hippocampus plays a key role in memory formation and the regulation of emotions.

QUESTION 5 A

A is correct. Medication used to treat the symptoms of Parkinson's disease will typically mimic dopamine neurotransmitters. Patients with Parkinson's disease lack dopamine in the motor areas of their brain, so the medication will help improve their motor control. **B** and **C** are incorrect. Cortisol and epinephrine are stress hormones that arouse the body. **D** is incorrect. Serotonin helps regulate mood, sleep and appetite.

QUESTION 6 C

C is correct. The function of feature detectors in visual perception is to break down visual stimuli into specific features, such as lines and orientation. A is incorrect. The detection of light occurs in the retina. B is incorrect. The photoreceptors in the retina convert the light into neural impulses. D is incorrect. The brain generates meaning from visual stimuli after the feature detectors have broken down the specific features of the visual stimuli and the visual stimuli is reassembled into a meaningful whole.

OUESTION 7 C

C is correct. The misperception of two lines of equal length in the Ponzo illusion can be partially explained by the apparent-distance hypothesis, in which both linear perspective and height in the visual field create a sense that the upper line is more distant the lower line. Given that both lines cast the same sized retinal image, the upper line is misperceived to be longer than the lower line. A is incorrect. Both lines cast retinal images of the same size. B is incorrect. Gestalt principles have no effect on the perception of the Ponzo illusion. D is incorrect. No unconscious compromise occurs.

QUESTION 8 B

B is correct. Echoic memory has a duration of 3–4 seconds. **A** and **C** are incorrect. Both working and short-term memory have a duration of approximately 20 seconds. **D** is incorrect. Long-term memory has an indefinite duration.

OUESTION 9 C

C is correct. Chunking involves grouping bits of information into chunks in order to increase the capacity of short-term memory beyond the standard 5–9 pieces of information. **A** is incorrect. Maintenance rehearsal is used to extend the duration of short-term memory. **B** and **D** are incorrect. The methods of elaborative rehearsal and loci are used to enhance the organisation of material in long-term memory.

QUESTION 10 B

B is correct. Val is using recognition to help cue this memory of her teammates, as she is identifying their images from a large group of alternative faces. **A** is incorrect. Recall would be used if there was no photograph for Val to look at, meaning there was no cue for the memory retrieval. **C** is incorrect. Relearning would involve Val learning information she has previously learned again – in this case, the names of her teammates – which would reduce the time it takes Val to recall the information. **D** is incorrect. Elaborative rehearsal would be used to enhance the encoding of the names of Val's eight teammates into her long-term memory.

OUESTION 11 B

B is correct. Gus is phonemically processing the lyrics of the song according to sound. **A** is incorrect. Gus would process the lyrics structurally by viewing the written lyrics. **C** is incorrect. Echoic memory is a form of sensory memory which registers the raw sounds. **D** is incorrect. If Gus processed the lyrics according to their meaning, he would be using the semantic level of processing.

QUESTION 12 A

A is correct. In terms of classical conditioning, Finn's nausea is an unconditioned response (UCR) that is triggered by an unconditioned stimulus (UCS) – the toxic fumes. **B** and **C** are incorrect. A conditioned response (CR) occurs after a UCR has been repeatedly paired with a neutral stimulus. **D** is incorrect. The UCS is the toxic fumes Finn has inhaled.

QUESTION 13 D

D is correct. Leah's conscious behaviour is a result of operant conditioning. Receiving the speeding fine resulted in stimulus discrimination, as she had slowed down when exposed to the antecedent of the school, the place where she was fined for speeding. **A** is incorrect. It is not spontaneous recovery because there is no evidence that her behavior had been extinguished. **B** and **C** are incorrect. It is not an example of classical conditioning because Leah's behaviour is voluntary (and not involuntary).

QUESTION 14 D

D is correct. Observational learning requires the highest level of cognition by the learner, in comparison to the other learning theories, as the learner must first actively observe modelled behaviour, then observe the consequences applied to the modelled behaviour. As a result, the learner must use a higher level of cognition to determine if the behaviour is worth repeating or not. **A** and **B** are incorrect. Reflex actions and classical conditioning are involuntary and thus require no cognition. **C** is incorrect. Operant conditioning is experienced directly by the learner and requires less cognition to make the association between the behaviour and the consequence.

QUESTION 15 C

C is correct. The hippocampus is responsible for the consolidation of semantic (explicit) memory.

A is incorrect. The cerebellum is responsible for the formation of procedural (implicit) memory.

B is incorrect. The cerebral cortex is responsible for the regulation of working memory. D is incorrect. The amygdala is largely responsible for fear conditioning.

QUESTION 16 B

B is correct. Secondary socialisation continues into adulthood and helps the individual learn how to fit into society without the confines of adult supervision. **A**, **C** and **D** are incorrect. These options relate to primary socialisation, which occurs during childhood via agents (parents or guardians).

QUESTION 17 C

C is correct. Biosocial theory states that the gender of human children is not genetically predetermined and that allocation of male or female gender roles are determined by societal expectations around the child's genitalia. A and B are incorrect. Gender is based on the interaction between biological and social factors. D is incorrect. Only a small percentage of the population is born intersex.

QUESTION 18 A

A is correct. Altruism is the selfless devotion to the welfare of others and thus is a form of prosocial behaviour. **B** is incorrect. Antisocial behaviour describes actions that are harmful to others, as opposed to altruism benefitting others. **C** and **D** are incorrect. Altruism is a personal characteristic, whereas social factors refer to the factors that apply to society at large.

QUESTION 19 A

A is correct. In terms of the tri-component model of attitudes, the strong opposition to covering one's face with a mask represents the affect (the emotional component). **B** is incorrect. The behaviour is the refusal to wear face masks. **C** is incorrect. The thought (cognition) is that face masks are ineffective in controlling the spread of the virus. **D** is incorrect. A cost-benefit analysis has not been evidenced in this scenario.

QUESTION 20 C

C is correct. A self-serving bias is primarily employed to maintain an individual's self-esteem and for them to view themselves more favourably than others do. A, B and C are incorrect. These options are not related to the thought processes that result in a person's self-perception.

QUESTION 21 D

D is incorrect. The general aggression model (GAM) is based on the impact of short-term exposure to violent video games, which could induce a child's aggression as seen through their arousal, cognitive and affective measures. The model focuses on the reaction to the aggression from video games rather than the consequential behavioural impact. **A** is incorrect. Classical conditioning triggers a reflexive form of learning in response to a specific stimulus – aggression is triggered by a variety of stimuli. **B** is incorrect. The observation of household aggression could result in learned aggression, but the GAM is based on the response to aggression. **C** is incorrect. The GAM focuses on measures rather than behaviour.

QUESTION 22 A

A is correct. According to Duck's stages of dissolution, Jan is experiencing the grave-dressing phase, which is a defence mechanism employed that will help her rebuild her damaged self-esteem. **B** and **D** are incorrect. The intrapsychic and dyadic stages occur prior to the break-up. **C** is incorrect. The resurrection stage will occur when Jan is ready to enter a new relationship.

QUESTION 23 B

B is correct. Acculturation can best be described as retaining core cultural virtues such as language, traditions, diet and other rituals while abiding by some of the cultural norms of an adopted culture. **A** is incorrect. Xenophobia is a term used to describe a fear of people from a different cultural background. **C** is incorrect. Assimilation occurs when a person or group fully adapts their cultural norms to fit in with a new culture. **D** is incorrect. Immigration involves a family that moves to another country and the new culture that arises due to the geographical shift.

QUESTION 24 D

D is correct. Prosocial behaviour, the act of helping others, has been found by psychologists to be explained by a combination of nature and nurture. Nature affects prosocial behaviour, as humans have a genetic predisposition to help others as part of an inherent need to protect the gene pool. Nurture affects prosocial behaviour as, through social learning, humans are socialised into prosocial behaviour by observing prosocial actions from their parents, guardians or other members of their community. **A** is incorrect. Prosocial behaviour is a conscious, not reflexive, form of behaviour. **B** is incorrect. Prosocial behaviour can be attributed to both environmental and biological factors. **C** is incorrect. Humans have a genetic predisposition to help others, but it is not predetermined in the sense that they will automatically help others in need (for example, if helping someone in distress poses a risk to themselves).

QUESTION 25 C

C is correct. Molly has demonstrated cognitive dissonance, as she feels uncomfortable with the inconsistency of her behaviour with her beliefs about complaining publicly about a small business. A is incorrect. A perceptual set is a predisposition to perceive stimuli in a certain way, which has no relevance in this scenario. B is incorrect. A self-serving bias has not been demonstrated in this case, given the emphasis is on the café and not Molly's self-perception. D is incorrect. An explicit attitude would have been demonstrated if Molly's behaviour were consistent with her attitude.

QUESTION 26 A

A is correct. Mutual independence is the opposite of mutual interdependence, which occurs when groups rely on each other to complete a task and will tend to reduce prejudice between groups. Mutual independence occurs when groups work separately from each other, which would not reduce prejudice. B is incorrect. Intergroup contact involves increased exposure to a particular group of people, which tends to reduce prejudice. C is incorrect. Creating superordinate goals occurs when all members of a group must work together to achieve a common goal, which tends to reduce prejudice. D is incorrect. Sustained contact occurs when people from different cultures have a long-term collaboration on a project or task, which tends to reduce prejudice.

OUESTION 27 D

D is correct. The mode is the most frequently occurring value, which was 450 volts as recorded by four participants. **A** is incorrect. The range of the results is 345–450 volts. **B** is incorrect. The mean of the results is 414 volts. **C** is incorrect. The middle or median result is 420 volts.

QUESTION 28 D

D is correct. The middle or median result is 360 volts. **A** is incorrect. The range of scores is 300–450 volts. **B** is incorrect. The mode of the results is 300 volts. **C** is incorrect. The mean of the results is 354 volts.

QUESTION 29 B

B is correct. The participants would be debriefed about the nature of the experiment and the deception of the false shocks delivered to the learner at the conclusion of the experiment. **A**, **C** and **D** are incorrect. Debriefing occurs at the end of the experiment.

QUESTION 30 C

 $\bf C$ is correct. The range is one method of evaluating the variability of each set of results. $\bf A$ and $\bf B$ are incorrect. The mean and mode are measures of central tendency. $\bf D$ is incorrect. The p value is a measure of statistical significance.

SECTION 2

QUESTION 31 (2 marks)

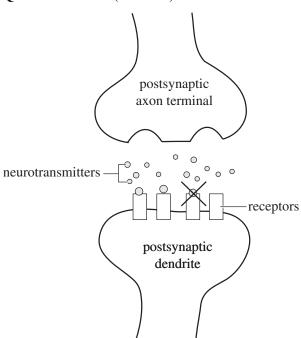
Interneurons connect sensory neurons with motor neurons.

[1 mark]

Thus, when the sensory receptors in the skin detect harmful stimuli such as heat, the sensory neurons will convey an afferent signal to the spinal cord, where the interneurons will integrate the sensory and motor information, independently of the brain.

[1 mark]

QUESTION 32 (2 marks)



[2 marks]

1 mark for correctly labelling the diagram.

1 mark for locating a receptor site for the uptake of a neurotransmitter.

QUESTION 33 (2 marks)

As a result of her traumatic experience in terms of the traumatic nature of the robbery,	[1 mark]
Sheila's perceptual set may be predisposed to perceive males that wear football jerseys	
as violent.	[1 mark]

QUESTION 34 (3 marks)	
A white rat (NS) was repeatedly presented to Little Albert.	[1 mark]
The sound of a loud clang (UCS) was repeatedly paired with the presentation of the white rat (NS), which startled Little Albert (UCR).	[1 mark]
Eventually, Little Albert associated the white rat (CS) with fear (CR).	[1 mark]

QUESTION 35 (2 marks)

Mr Drew experienced retrieval failure.

[1 mark]

Mr Drew lacked the necessary cue to access Aldo's name from his long-term memory. This could be explained by a lack of contextual details such as a different environment (a shopping centre versus a school) or Aldo's attire (casual clothes versus a school uniform).

[1 mark]

QUESTION 36 (1 mark)

Any one of:

- The guards were given reflective glasses.
- The guards were given uniforms.
- The guards were referred to as 'Mr Correction officer'.

[1 mark]

QUESTION 37 (2 marks)

The cognitive origin of attraction argues that attraction is based on an individual's perception of their biological attractiveness, which is more innately predetermined.

[1 mark]

The social origin of attraction argues that attraction is based on regular exposure and close proximity to a potential mate.

[1 mark]

OUESTION 38 (3 marks)

In the first stage, Jun experienced a spike in his physiological arousal. The greater the level of arousal, the more likely it is that he would help the swimmer.

[1 mark]

In the second stage, Jun labelled the arousal with a specific emotion, which could have been distress from seeing a swimmer that is vulnerable or empathy for the swimmer's distressing situation.

[1 mark]

In the third stage, Jun evaluated the consequences. This involved weighing up the benefits and costs of helping, which depended on variables like the number of people that saw the swimmer in distress and his perception of the swimmer's competence in the water.

[1 mark]

QUESTION 39 (2 marks)

Prejudiced personality types are more likely to hold a prejudicial attitude towards certain groups in society.

[1 mark]

In this case, they may blame gambling addiction on the number of sporting clubs who have poker machines and thus the prejudiced personality types may believe that these clubs are acting irresponsibly by encouraging vulnerable people to continue to gamble by offering various opportunities to gamble.

[1 mark]

QUESTION 40 (2 marks)

The migrants can retain their own cultural values while at the same time being accepted by the Australian community, which would demonstrate pluralism.

[1 mark]

If the migrants assimilated to Australian culture instead and adopted Australian rules, regulations and cultural values, they would demonstrate multiculturalism.

[1 mark]

QUESTION 41 (2 marks)

The opposing business owners could demonstrate compliance by publicly agreeing with the midnight curfew proposal but privately opposing the proposal.

[1 mark]

The opposing business owners that have been persuaded by the strength of the arguments of the supporters of the curfew, and thus both publicly and privately agree with the proposal, demonstrate identification.

[1 mark]

QUESTION 42 (2 marks)

Membership: If the netball players feel like they belong to the club as a whole, as opposed to simply playing for a team each season, this will enhance the relationships between team members.

[1 mark]

Influence: If the netball players feel like they have a say in the direction of the club, it will help foster their sense of belonging to the club.

[1 mark]