

Trial Examination 2023

Suggested Solutions

QCE Psychology Units 3&4

Paper 1

SECTION 1 – MULTIPLE-CHOICE QUESTIONS

	Α	В	С	D
1.	\bigcirc	\bigcirc	\bigcirc	\bullet
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	А	В	С	D
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QUESTION 1 D

D is correct and **C** is incorrect. Neurotransmission involves chemical signalling molecules (neurotransmitters) leaving a presynaptic neuron and moving across a synapse to a postsynaptic neuron.

A and **B** are incorrect. Neurotransmission does not involve electrical impulses. Electrical impulses send messages along the axon of the neuron, from the soma to the axon terminal.

QUESTION 2 A

A is correct. Short-term memory has a capacity of 5–9 items and a duration of 15–30 seconds.

B and **C** are incorrect. There are no types of memory stores that have these combinations of capacity and duration.

D is incorrect. Long-term memory has an unlimited capacity and can store memories for an indefinite period of time.

QUESTION 3 A

A is correct. Geschwind's territory connects Broca's area (the motor region involved in speech production) and Wernicke's area (the sensory region of the brain involved in speech comprehension).

B is incorrect. Wernicke's area stores receptor codes that interpret the meaning of language.

C is incorrect. Broca's area coordinates the lips, tongue and vocal cords for language production.

D is incorrect. There is no brain area that is specifically responsible for storing language memory when learning a second language.

QUESTION 4 B

B is correct and **A** is incorrect. Alzheimer's disease is thought to be caused by neurons not producing enough acetylcholine, which is essential for processing memory and learning.

C and **D** are incorrect. Dopamine is linked to Parkinson's disease, not Alzheimer's disease. For example, one role of dopamine is to control messages in that brain that pass from the substantia nigra to the striatum, which controls balance and movement. When there is not enough dopamine, these messages fire uncontrollably, resulting in the jerky movements experienced by those with Parkinson's disease.

QUESTION 5 C

C is correct. The phonological loop is responsible for verbal and auditory information, and aids in understanding sentences or phrases of more than a few words.

A is incorrect. The visuospatial sketchpad refers to our ability to temporarily store visual and spatial information.

B is incorrect. The central executive is a flexible system responsible for the control and regulation of cognitive processes.

D is incorrect. The episodic buffer integrates information from several sources to create a unified memory.

QUESTION 6 A

A is correct. The hippocampus is responsible for the processing and retrieval of declarative and spatial memory, while the cerebellum plays a key role in processing implicit memories.

B is incorrect. Although the hippocampus plays a role in memory, the amygdala mainly drives the fight-flight-freeze response.

C is incorrect. The amygdala mainly drives the fight-flight-freeze response, and despite the hippocampus being part of the limbic system, the system is mainly responsible for behavioural and emotional responses.

D is incorrect. The cerebellum is responsible for implicit memories; however, the limbic system is mainly responsible for behavioural and emotional responses.

QUESTION 7 B

B is correct. The warning sound acts as a reinforcement for occupants who do not fasten their seatbelt. By fastening their seatbelt to turn off the sound, occupants are more likely to fasten their seatbelt in the future. As the aversive stimulus of the warning sound is removed, this scenario is an example of negative reinforcement in operant conditioning.

A is incorrect. Classical conditioning creates a conditioned response by pairing an unconditioned stimulus with a neutral stimulus. The scenario does not refer to any stimulus pairings.

C and **D** are incorrect. Both modelling and vicarious conditioning are part of the social learning theory, in which behaviours are learnt through observations of other people reinforcing certain acts. There is no indication that observation occurs in the scenario.

QUESTION 8 B

B is correct. The reappearance of a conditioned response after a period of time in which the stimulus did not elicit the response is known as spontaneous recovery.

A is incorrect. Extinction occurs when a conditioned stimulus is repeatedly applied without pairing it with an unconditioned stimulus. After a period of time, the conditioned response occurs less and less, and eventually stops.

C is incorrect. A neutral stimulus refers to any stimulus being paired with an unconditioned stimulus to elicit a conditioned response. The neutral stimulus has no association to the desired response and therefore does not trigger the desired response on its own.

D is incorrect. A neutral stimulus becomes a conditioned stimulus once it elicits a desired response.

QUESTION 9 A

A is correct. Deindividuation refers to a phenomenon where individuals believe they cannot be identified, and so they engage in seemingly impulsive, defiant or violent behaviours.

B is incorrect. Deidentification is an ethical research term that refers to removing any identifying information from participants or clients.

C is incorrect. Derecognition is not a term used in the study of psychology.

D is incorrect. Depersonalisation is a detachment from the self in regard to one's own mind and body, but it is not necessarily linked to antisocial behaviour in the same context as the question.

QUESTION 10 B

B is correct. The reciprocity principle refers to the social expectation that a person will respond in kind to someone who has helped them or done them a favour.

A is incorrect. Social responsibility refers to the expectation that members of a society will provide help to people who are dependent or in need, without expecting the favours to be returned.

C is incorrect. Empathy refers to the ability to understand and share the feelings of another person. Although this may be a factor that influences prosocial behaviour, it is not the factor described in the question.

D is incorrect. Altruism refers to the selfless concern for the wellbeing of others. Although this may be a factor that influences prosocial behaviour, it is not the factor described in the question.

QUESTION 11 C

C is correct. Groupthink can occur when a group is working together to make a decision or solve a problem. In this scenario, many people are walking past and noticing the woman but are not working together to help her; thus, groupthink does not explain the actions of the bystanders.

A is incorrect. When a group of people are present during an emergency, responsibility is diffused throughout the group. Consequently, each individual feels less responsible for helping as they believe that someone else will assume the responsibility of helping.

B is incorrect. Audience inhibition refers to the presence of other bystanders or onlookers making a potential helper feel self-conscious and thus inhibiting the helpful behaviour.

D is incorrect. Social influence refers to the reaction of other bystanders influencing the actions of a potential helper. If the bystanders appear unconcerned, then potential helpers may not perceive the situation to be an emergency. If the bystander appear concerned, then the likelihood of help is higher.

QUESTION 12 B

 \mathbf{B} is correct. In social psychology, proximity refers to being physically close to someone and is a factor in attraction. A person is more likely to feel attraction to another person by increasing their proximity over time.

A is incorrect. This option describes reciprocity. Reciprocity refers to a person giving as much as they receive, which can influence the attraction and longevity of a relationship.

C is incorrect. This option does not describe proximity or any other aspect of attraction.

D is incorrect. This option describes similarity. Similarity refers to people who are more likely to find each other attractive due to their similarities.

QUESTION 13 A

A is correct. The teacher is demonstrating implicit racism, as they stereotyped the new student by assuming they must be good at mathematics because of the association to their Asian culture.

B is incorrect. The teacher's assumption is not considered explicit racism. The type of racism being demonstrated does not appear to be overt or intentional in nature, particularly because the teacher is warmly welcoming the new student to the classroom.

C is incorrect. Mutual interdependence refers to a pattern of mutual control that two or more individuals have over their own and each other's outcomes; it is not applicable to the scenario. An example of mutual interdependence would be the teacher attempting to have her class work on a project together in an attempt to reduce prejudice.

D is incorrect. Integration occurs when several cultures come together to form a new, multicultural society; it is not applicable to the scenario.

QUESTION 14 A

A is correct. The fundamental attribution error occurs when people attribute the behaviour of a person in a specific situation to their character or personality, while attributing their own actions to external factors. In the scenario, James attributes the foul to the referee's bias and personality, and does not consider any situational attributes that may have contributed to him fouling out.

B is incorrect. Confirmation bias refers to the tendency to seek out information that supports pre-existing beliefs. In the scenario, there is no indication that James is recalling past negative experiences with the same referee to affirm his beliefs about the referee being a bad person and making biased calls.

C is incorrect. Groupthink is when a group makes a decision without any critical evaluation of the consequences or alternatives. The scenario describes interactions between James and the referee, not a group decision.

D is incorrect. Cognitive dissonance refers to an uncomfortable state of mind that occurs when actions do not correspond to beliefs. Individuals change their beliefs to try to decrease the uncomfortable feelings.

QUESTION 15 D

D is correct. Deregowski concluded that remote African people most likely have not learnt the ability to integrate depth cues in pictures due to having limited experience with three-dimensional pictures.

A is incorrect. Deregowski's investigation did not relate to preference.

B and **C** are incorrect. These conclusions were drawn from the Hudson (1960) study on individual differences in perception of two- and three-dimensional images (specifically depth perception) between Caucasian and African cultures.

QUESTION 16 D

D is correct. Bandura demonstrated that learning can occur through direct observation of others, which is referred to as the social learning theory.

A is incorrect. Skinner (1948) demonstrated that learning can occur through using reinforcements and punishments, which is referred to as operant conditioning.

B is incorrect. Two theorists, Pavlov (1897, 1902) and Watson (1920), demonstrated that learning can occur through repeated association of the neutral stimulus just before the unconditioned stimulus, which is referred to as classical conditioning.

C is incorrect. Bandura's social learning theory uses reinforcements and punishments as stimuli to try to either increase or decrease the frequency of a targeted response.

QUESTION 17 A

A is correct. Classical conditioning occurs by the repeated association of two stimuli (neutral and unconditioned) so that the neutral stimulus eventually becomes the conditioned stimulus, which elicits the conditioned response. Operant conditioning involves stimuli in the form of responses to certain events, with a reward or punishment reinforcing the desired response.

B and **C** are incorrect. Classical conditioning associates involuntary behaviour with a stimulus, while operant conditioning associates voluntary behaviour with a stimulus.

D is incorrect. Only operant conditioning relies on motivations, rewards or punishments.

QUESTION 18 D

D is correct. The cognitive developmental theory argues that an understanding of gender and its meaning is dependent on a child's current stage of cognitive development. The theory suggests that children go through three stages in understanding gender: gender identity, gender stability and gender constancy.

A is incorrect. Vicarious learning and modelling describe aspects of social learning theory, not cognitive developmental theory.

B is incorrect. The determination of gender by the X and Y sex chromosomes is an aspect of biological theories, not cognitive developmental theory.

C is incorrect. The biosocial theory of gender formation (or gender schema theory) argues that a child's gender is neutral at birth. As the child develops, socialisation is based around the type of genitalia they have compared to others.

QUESTION 19 C

C is correct. Replications from Asch's studies found participants from individualistic cultures were less likely to conform when compared to those from collectivist cultures.

A, B and D are incorrect. These conclusions are drawn from replications of Asch's study.

QUESTION 20 C

C is correct. Confirmation bias is the unintentional tendency to process information by looking for, or interpreting, information that is consistent with one's existing beliefs, while ignoring other disconfirming information.

A is incorrect. Self-serving bias is the unintentional tendency people have to seek out information and use it in ways that advance their self-interest.

B is incorrect. Social prejudice is the unfair treatment or negative feelings directed towards certain individuals or social groups.

D is incorrect. Implicit prejudice refers to unconscious automatic associations made between members of a group and one or more negative attributes.

SECTION 2

QUESTION 21 (1 mark)

recognition

[1 mark] 1 mark for stating the correct memory retrieval method.

QUESTION 22 (2 marks)

Any two of:

- ageing
- genetics
- physiological makeup

[2 marks] 1 mark for each biological influence provided.

QUESTION 23 (2 marks)

For example, any two of:

- confusion
- nervousness
- feeling overwhelmed
- frustration
- feeling isolated
- loneliness
- sadness
- homesickness
- difficulty paying attention

[2 marks] 1 mark for each symptom provided. Note: Accept any other appropriate symptoms.

QUESTION 24 (4 marks)

For example:

Primary socialisation is the learning of beliefs, customs and behaviour that are appropriate during the early stages of life. This is facilitated by close family members.

In comparison, secondary socialisation is the learning of beliefs, customs and behaviour that are considered appropriate from extended social networks. This can be facilitated by agents such as extended family.

[4 marks] 1 mark for describing primary socialisation. 1 mark for providing an example of an agent that facilitates primary socialisation. 1 mark for describing secondary socialisation. 1 mark for providing an example of an agent that facilitates secondary socialisation. Note: Other appropriate examples of agents that facilitate secondary socialisation include friends, teachers and the media.

QUESTION 25 (2 marks)

For example:

Prejudice expressed as ageism refers to the feelings and negative attitudes towards a person based on their age. For example, a worker in a mobile phone repair store may feel annoyed when they see an elderly customer walk in, as they assume that the customer does not know how to use their phone properly.

[2 marks]

1 mark for describing prejudice expressed as ageism. 1 mark for providing an example of prejudice expressed as ageism. Note: Accept any suitable example.

QUESTION 26 (2 marks)

For example:

Past experiences form strong connections between neurons, which forms a perceptual set and predisposes individuals to perceive events based on previous experiences. When an individual views a new image, scene or experience, it can be interpreted differently based on the expectations held from past experiences. For example, an individual who has previously stood on a snake while on a bushwalk may perceive a coiled rope as a snake.

[2 marks] 1 mark for explaining how past experiences influence visual perception. 1 mark for providing a relevant example. Note: Accept any suitable example.

QUESTION 27 (2 marks)

For example:

Exposure to violent materials via different media formats can desensitise viewers to violence. This can influence people's social norms, increase the likelihood of them displaying or engaging in violent behaviour, or make aggressive behaviour seem more acceptable. For example, cyberbullying often perpetuates due to the online anonymity afforded by social media platforms. This anonymity also allows for perpetrators to avoid retaliation and continue bullying behaviour.

[2 marks]

1 mark for explaining how media usage can influence aggression. 1 mark for providing an example relating to social media. Note: Accept any suitable example.

QUESTION 28 (4 marks)

For example:

Stimulus generalisation occurs when a similar stimulus, which shares the same characteristics as a conditioned stimulus, produces the same conditioned response as the conditioned stimulus. For example, a dog that has been conditioned to salivate in response to a bell sound also salivates at the sound of a buzzer, even though the buzzer was never paired with the food stimulus.

Stimulus discrimination occurs when differentiation is made between a conditioned stimulus and a similar stimulus. For example, a dog that salivates when it hears a bell (conditioned stimulus), but does not salivate when hearing a buzzer (similar stimulus).

[4 marks]

1 mark for describing stimulus generalisation.
1 mark for providing an example of stimulus generalisation.
1 mark for describing stimulus discrimination.
1 mark for providing an example of stimulus discrimination.
Note: Accept any suitable examples.

QUESTION 29 (2 marks)

For example:

Superordinate goals involve working towards valuable goals that are too big for a single person or group to complete on their own, and requires cooperation between different groups. Working together reduces conflict and increases a sense of in-group membership. For example, players from two different sports teams needing to work together on a team-building activity.

[2 marks]

1 mark for describing how superordinate goals can reduce prejudice. 1 mark for providing an appropriate example. Note: Accept any suitable example.

QUESTION 30 (1 mark)

Multiculturalism is the preservation of cultural identities within a society that is unified, with the incoming cultural group playing an important role in society and has equal respect and rights to those originally in the society. In contrast, pluralism is when smaller groups migrate to a larger community and retain the values and ideals of their original culture, which are accepted by the larger community provided the ideals and laws fit those of the larger community.

[1 mark] 1 mark for contrasting multiculturalism and pluralism.

QUESTION 31 (3 marks)

Epinephrine and acetylcholine are both neurotransmitters (chemical messengers) that bind with receptors. *At least one of the following differences:*

- Epinephrine can be a hormone or a neurotransmitter, while acetylcholine can only be a neurotransmitter.
- Epinephrine works by increasing heart rate, blood flow and blood pressure, while acetylcholine stimulates muscular contractions to control breathing, digestion and cardiovascular muscles.
- Epinephrine works on the sympathetic nervous system, while acetylcholine works on the parasympathetic nervous system.

The similarity and differences between epinephrine and acetylcholine are significant as they play different roles in the nervous system while working together to maintain coordination and control of a functioning organism.

[3 marks] 1 mark for recognising the similarity. 1 mark for recognising at least one difference. 1 mark for identifying the significance of the similarity and difference.

QUESTION 32 (2 marks)

Any two of:

- If there are more bystanders around, it is less likely that any one of them will help a stranger in need.
- If other bystanders appear unconcerned about a situation, then the chance of a bystander helping a stranger decreases.
- If a bystander feels self-conscious about helping a stranger due to the presence of others, then the chance of the bystander helping the stranger decreases.

[2 marks] 1 mark for each description provided.

QUESTION 33 (4 marks)

For example:

For: The levels of processing (LOP) model improved the understanding of information transfer from short-term memory to long-term memory. For example, when information is encoded on a deeper level *(such as when personal meaning is given to the information)*, it is easier to remember than when the encoding is shallow *(such as processing a word simply by the way it sounds)*.

Against: The ideas of the LOP model cannot be quantitatively examined. For example, the concept of depth is arbitrary and vague, and cannot be directly observed or measured. As such, the LOP model can only describe ideas rather than explain how they occur.

[4 marks]

1 mark for providing an argument for the levels of processing model.
1 mark for providing an example for the levels of processing model.
1 mark for providing an argument against the levels of processing model.
1 mark for providing an example against the levels of processing model.
Note: Accept any suitable arguments and examples.

QUESTION 34 (2 marks)

Any one of the following strengths:

- The study had test-retest reliability and was replicable.
- The test was controlled so it had internal and predictive validity.

Any one of the following limitations:

- Asch did not obtain informed consent from his participants, which made the study unethical.
- The study lacked population validity as the sample only included males of similar age.
- The study lacked historical validity and was only representative of 1950s American culture.
- The study lacked ecological validity as the experiment was conducted in a laboratory setting.

[2 marks] 1 mark for identifying one strength of Asch's study. 1 mark for identifying one limitation of Asch's study.

QUESTION 35 (2 marks)

People tend to be more prosocial when they observe their group members performing prosocial behaviours. This is evident in the study as the participants who observed large donations gave more money to charities than the individuals who observed small donations.

[2 marks] 1 mark for describing how prosocial conformity can lead to behaviour change. 1 mark for referring to the study.