



Trial Examination 2020

---

**Suggested solutions**

# **QCE Psychology Units 3&4**

Paper 2

---

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.

## SECTION 1

### QUESTION 1 (7 marks)

- a) The results of the research investigation indicated that the samples without schooling from both groups were able to perceive 2D images. Thus, the different social and cultural understandings of both the Bantu group and the general population group cannot be seen to have affected the two groups' visual perception of 2D images. [1 mark]

The sample with schooling showed cultural differences; the general population group showed a much higher rate of 3D perception of the images compared with the Bantu group with similar schooling experience. Thus, different social and cultural relevance and understanding can be seen to have affected the different groups' 3D perception and interpretation of 2D images. [1 mark]

- b) The general population group may have had a significant amount of additional exposure to pictorial depth cues on a 2D surface in comparison with the Bantu group. [1 mark]

*For example (any two of):*

- Height in a visual field: The viewer would perceive a land-based image that is higher in the visual field to be more distant than an image that is lower in the visual field.
- Relative size: If the viewer had an accurate idea of the real size of an object, then they could judge its relative size in comparison to other similar sized objects based on the size of the retinal image.
- Interposition: If an object partially obscures another object, then the partially obscured object will be perceived to be more distant than the unobscured object.
- Texture gradient: An object that is depicted in a high level of detail will be perceived to be closer than an object that is depicted with less detail.
- Linear perspective: The apparent convergence of parallel lines as they seem to merge in the distance.

[2 marks]

*Award 1 mark for each appropriate example.*

- c) The process of selection is that an image is broken into visual elements by the feature detectors in the optic nerve and visual cortex. [1 mark]  
[1 mark]

### QUESTION 2 (6 marks)

- a) Retroactive interference occurs when newly learned material diminishes the retrieval of previously learned material. [1 mark]  
[1 mark]

- b) Proactive interference would occur if the previously learned password made it difficult to learn a new password. In this case, proactive interference would occur if the new password is not distinct and dissimilar to the original password. [1 mark]

This is reflected in the findings of the experiment, as the greater the similarity between the material, the more likely that the previously learned material interfered with the newly learned material. [1 mark]

- c) Capacity: STM has a capacity of 5–9 bits of information; therefore, the group that rested before attempting to recall the list of adjectives would have had difficulty retaining more than nine adjectives in their STM. [1 mark]
- Duration: STM has a duration of around twenty seconds; thus, the participants would need to rehearse the list of adjectives for ten minutes in order to retain them in STM, unless they are able to encode them in LTM, which has a longer duration. [1 mark]

**QUESTION 3 (7 marks)**

- a) Pavlov was able to extinguish the conditioned response in the dog by repeatedly exposing the dog to the conditioned stimulus (the ringing of the bell) without the presentation of the unconditioned stimulus (the dog food), until the conditioned response (the salivation reflex) no longer occurred. [1 mark]  
[1 mark]  
[1 mark]
- b) The dog may have experienced stimulus generalisation if a conditioned response of salivation was elicited by something similar to the conditioned stimulus, such as the sound of a door bell. [1 mark]  
[1 mark]
- c) The dog was classically conditioned as opposed to operantly conditioned because:
- The dog's salivation response was involuntary. An operant response would have been voluntary.
  - The learning was a passive process in terms of the dog's association between the ringing of bell and the food, whereas learning in operating conditioning is an active process.

[2 marks]

*Award 1 mark for each appropriate reason used to explain why the dog was classically conditioned.*

**QUESTION 4 (7 marks)**

- a) Coercive power refers to the ability of a person in a position of authority to gain compliance from someone due to the fear of an undesirable consequence. [1 mark]
- In this experiment, the guards threatened the prisoners with various forms of punishment (push-ups, jumping jacks, or removing their mattresses) if they did not follow the prison rules, thus using their authority to gain compliance. [1 mark]
- b) Cognitive dissonance may have occurred if a guard felt uncomfortable that their behaviour was inconsistent with their beliefs.
- In terms of the tri-component model of attitudes this includes:
- Affect: Guards felt empathy for the prisoners.
  - Cognition: Guards believed that the prisoners had similar moral rights to their own.
  - Behaviour: Guards acted aggressively towards the prisoners.

[3 marks]

*Award 1 mark for explaining cognitive dissonance.  
Award 1 mark for identifying each of the three components.  
Award 1 mark for a clear link to the scenario.*

- c) A self-serving bias occurs when an individual views themselves as more favourable than others in the same position. [1 mark]
- Some of the guards may have believed that they had a greater level of morality than other guards because they were not the guards to instigate harassment or abuse of prisoners. [1 mark]

**QUESTION 5 (8 marks)**

- a) Explicit attitudes exist at a conscious level and are relatively easy to identify. In this case, the Eagles may have developed a prejudice towards the Rattlers after they believed that the Rattlers cheated in a game.
- Implicit attitudes exist at an unconscious level and are difficult to identify. In this case, a member of the Rattlers may feel that they are relatively equal to members of the Eagles, even though they feel a competitive rivalry towards the Eagles. [4 marks]
- Award 1 mark for each of the definitions.  
Award 1 mark for each suitable example.*
- b) Prejudice describes an unfavourable attitude that one group holds about another group. In this case study, for example, the Rattlers may have thought that the Eagles were being hostile when they raided the Rattler's cabin, or that the Eagles were cheaters in tug-of-war. [2 marks]
- Award 1 mark for the definition.  
Award 1 mark for a suitable example.*
- c) Membership may have contributed to the development of a sense of community for the boys through their interactions with their respective groups. The boys may have developed a sense of belonging and thus felt like they had earned the right to feel part of their particular group. [1 mark]
- Integration may have contributed to the development of a sense of community for the boys through the individual boys being brought together to work together as a group. [1 mark]

**QUESTION 6 (5 marks)**

- a) The Pearson correlation coefficient provides a measure of the strength of the relationship between two variables. In this case, these variables are the exposure to elderly priming and the volume and speed of speech delivery. [1 mark]
- A 0.81 coefficient indicates a strong positive relationship between these two variables. [1 mark]
- b) The Pearson correlation coefficient provides a measure of the strength of the relationship between two variables, whereas an inferential statistic determines statistical significance. [1 mark]
- c) Superordinate goals require the cooperation of two (or more) groups of people in order to achieve the goal. [1 mark]
- In a workplace, this would require elderly people to work alongside younger people when completing a task that requires all members of the team to be actively involved in order to achieve the goal. This would ideally demonstrate to the younger workers that their elderly co-workers are highly competent and thus help reduce ageist attitudes. [1 mark]
- Note: Other appropriate examples are acceptable.*