



Trial Examination 2022

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**Suggested Solutions**

# **QCE Psychology Units 3&4**

Paper 2

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## SECTION 1

### QUESTION 1 (10 marks)

- a) Negative reinforcement is the removal of an unpleasant or aversive stimulus from an individual after they have displayed the desired behaviour. Positive reinforcement is the addition of a pleasant consequence after an individual has displayed the desired behaviour. An example of negative reinforcement from Skinner's investigation is the electrified floor being switched off after the pigeon demonstrated the desired behaviour of pushing the button. An example of positive reinforcement from the investigation is the pigeon being rewarded with food when it pushed the button.

[3 marks]

*1 mark for distinguishing the difference between negative and positive reinforcement  
1 mark for identifying an example of negative reinforcement from Skinner's investigation.  
1 mark for identifying an example of positive reinforcement from Skinner's investigation.*

- b) Extinction occurs when a reinforcement or punishment is no longer associated with a desired behaviour and, as such, the desired behaviour is no longer demonstrated. Spontaneous recovery occurs after extinction if the reinforcement or punishment is re-established, which also re-establishes the desired behaviour

[1 mark]

*1 mark for differentiating between extinction and spontaneous recovery.*

- c) Stimulus generalisation occurred. The yellow light, despite being a different colour, was still a source of illumination that was similar to the original stimulus of the green light, which elicited the same response of pecking the switch. Operant conditioning was involved.

[3 marks]

*1 mark for stating that stimulus generalisation occurred.  
1 mark for explaining the process of stimulus discrimination as applied in the experiment.  
1 mark for identifying operant conditioning.*

- d) Both experiments involved the modification of the behaviour of individuals through learning.

*Any one of the following differences:*

- Skinner used operational learning techniques and Watson and Rayner used classical conditioning.
- Skinner used rats as participants and Watson and Rayner used a human infant.

Importantly, Watson and Rayner's research demonstrated that a fear response can be learned in humans.

[3 marks]

*1 mark for recognising the similarity between the experiments.  
1 mark for recognising at least one difference between the experiments.  
1 mark for identifying the significance of the difference.*

**QUESTION 2 (5 marks)**

- a) When all the previous people in the group identified the incorrect line length, the subject wanted to conform with the group and not stand out, so they also stated the wrong answer.

[1 mark]

*1 mark for identifying how conformity could be used to explain the behaviour of the participants in the study.*

- b) Any one of:

- Group size: If the group size were increased to four participants, conformity would have increased. (*Note: When the group size increased to four participants, conformity increased. However, conformity did not continue to increase when the group size was greater than four.*)
- Unanimity: If every member of the group were to agree upon a response, conformity would have increased.
- Deindividuation: If group members were to feel anonymous (that is, they were not easily identifiable to others in the group), conformity would have increased.
- Normative influence: If group members wanted to fit in with the remainder of the group to gain their approval and acceptance, conformity would have increased.
- Culture: If group members were from collectivist cultures, conformity may have increased compared to group members who were from individualistic cultures.
- Informational influence: If group members were to believe that other members of the group were more knowledgeable than themselves, conformity would have increased.

[2 marks]

*1 mark for identifying a factor.*

*1 mark for providing the reason.*

- c) A confederate is an individual who participates in an experiment but is not the subject being observed by the experimenter.

Asch used confederates because he was investigating how pressure from a group could lead people to conform. If the participants were aware of the true nature of the experiment (the role of the confederates), they would not have behaved naturally or normally.

[2 marks]

*1 mark for describing a confederate.*

*1 mark for explaining why Asch used confederates.*

**QUESTION 3 (5 marks)**

- a) Context dependent learning refers to situations when learning conditions match recall conditions, which leads to improved recall. This can explain the results of the experiment because participants in the noisy study/noisy test and silent study/silent test conditions performed better than participants in the silent study/noisy test and noisy study/silent test conditions.

[2 marks]

*1 mark for describing context dependant learning.*

*1 mark for describing how context dependent learning explains the results of the experiment.*

- b) The study used a small sample size, which reduced its population validity.

[1 mark]

*1 mark for identifying the small sample size.*

- c) The experiment found that matching study conditions to test conditions produces the best results. Therefore, elite athletes training for the 100 m sprint should train under conditions that are as similar as possible to the conditions of the 100 m final at the Olympic Games.

[2 marks]

*1 mark for identifying the results of the experiment.*

*1 mark for proposing that elite athletes should train under conditions that match the conditions at the Olympic Games.*

#### QUESTION 4 (6 marks)

- a) Obedience is a form of social influence that involves performing an action under the orders of an authority figure. In Milgram's study, the participant obeys the experimenters' instructions to shock the individual when the individual's answer was wrong.

[2 marks]

*1 mark for describing obedience.*

*1 mark for identifying an example from Milgram's study.*

- b) Reducing the status of the experimenter would decrease the obedience of the participants. In Milgram's study, the experimenter wore a grey lab coat. The purpose was to increase the participant's acceptance of the experimenter as a legitimate authority figure. The experimenter was called away from the room and another person replaced them. They did not wear a grey lab coat. The participants did not perceive the replacement as a legitimate authority figure, which significantly reduced their obedience.

[2 marks]

*1 mark for identifying the factor.*

*1 mark for identifying an example from Milgram's study.*

- c) Participants showed signs of severe stress and emotional strain during the study as their actions did not match their beliefs. This is an example of cognitive dissonance.

[2 marks]

*1 mark for explaining why participants displayed signs of severe stress and emotional strain.*

*1 mark for identifying the participants' responses as cognitive dissonance.*

#### QUESTION 5 (8 marks)

- a) An attitude is a person's view of or beliefs about an object, person, group, issue or concept. A behaviour is a person's actions towards an object, person, group, issue or concept. An example of an attitude from Festinger's experiment was when the participants thought the tasks were boring. An example of a behaviour from the experiment was when the participants lied and said the tasks were fun or worthwhile.

[3 marks]

*1 mark for distinguishing between an attitude and a behaviour.*

*1 mark for identifying an example of an attitude from Festinger's experiment.*

*1 mark for identifying an example of a behaviour from Festinger's experiment.*

- b) Cognitive dissonance refers to a situation that involves conflicting attitudes, beliefs or behaviours. This produces a feeling of mental discomfort and leads to an alteration in one of the attitudes, beliefs or behaviours to reduce the discomfort and restore balance. In Festinger’s experiment, the group that was paid less money and then asked to lie by saying that the tasks were interesting changed their attitude toward the tasks so that they evaluated the tasks as being interesting.

[2 marks]

*1 mark for explaining cognitive dissonance.*

*1 mark for identifying an example of cognitive dissonance from Festinger’s experiment.*

- c) All three of:

- changing one or more of the attitudes, beliefs or behaviours to make the relationship between the two attitudes, beliefs or behaviours a consonant relationship
- acquiring new information that outweighs the dissonant attitudes, beliefs or behaviours
- reducing the importance of the attitudes, beliefs or behaviours

[3 marks]

*1 mark for describing each way that cognitive dissonance can be alleviated.*

**QUESTION 6 (6 marks)**

- a) 26, 26, 27, 27, 28, **28**, 30, 30, 31, 31, 33

The median is 28.

[2 marks]

*1 mark for showing mathematical working.*

*1 mark for providing the numerical answer for the median.*

b)

Amount distributed (\$)	Number of participants
6	1
8	1
9	2
10	1
12	1
13	2
14	3

The mode is 14.

[2 marks]

*1 mark for showing mathematical working.*

*1 mark for providing the numerical answer for the mode.*

*Note: The mode is 14 because it is the number that occurs most frequently.*

- c) Since the p score (0.06) is greater than 0.05, there is a no statistical difference. Thus, it can be concluded that members of a group who share a social identity would not be more likely to share their money with others in their group than members of a group who do not share a social identity.

[2 marks]

*1 mark for identifying that the p score is greater than 0.05 and that this indicates no statistical difference.*

*1 mark for drawing a conclusion relevant to the p value.*