



Cambridge International AS & A Level

PSYCHOLOGY

9990/41

Paper 4 Specialist Options: Application

October/November 2022

1 hour 30 minutes



You must answer on the enclosed answer booklet.

You will need: Answer booklet (enclosed)

INSTRUCTIONS

- Answer **four** questions in total:
 - Answer questions from **two** options.
 - Section A: answer **two** questions.
 - Section B: answer **one** question.
 - Section C: answer **one** question.
- Follow the instructions on the front cover of the answer booklet. If you need additional answer paper, ask the invigilator for a continuation booklet.

INFORMATION

- The total mark for this paper is 60.
- The number of marks for each question or part question is shown in brackets [].

This document has **8** pages. Any blank pages are indicated.

Section A

You must answer **two** questions from this section.
Answer all the parts for the two questions you choose.

Psychology and abnormality

- 1 Richard has a fear of oranges and knows about the behavioural explanation of phobias. Richard wants to be treated using systematic desensitisation (Wolpe, 1958). However, his partner thinks that other treatments may be better.
- (a) Explain what is meant by a 'behavioural explanation of phobias'. [2]
 - (b) Explain how systematic desensitisation would be used to treat Richard's fear of oranges. [4]
 - (c) Suggest **two** ways in which a phobia can be treated, other than systematic desensitisation. [4]
 - (d) Discuss the strengths and weaknesses of using systematic desensitisation to treat phobias. You should include a conclusion in your answer. [5]

Psychology and consumer behaviour

- 2 Newspaper Headline: Bugs Bunny goes to Disney!
Braun-LaTour et al. (2004) investigated the retroactive effect that advertising has on how consumers remember past experiences. In Experiment 1, students received course credits for participating. Data was collected and coded and an inter-rater reliability correlation of 0.9 was found between the two independent judges (coders).
- (a) Explain what is meant by the term 'retroactive effect' in this study. [2]
 - (b) (i) Give **one** example of the data that was collected in Experiment 1. [2]
(ii) Explain what is meant by an 'inter-rater reliability correlation of 0.9'. [2]
 - (c) Explain how this study relates to the debate about individual versus situational explanations. [4]
 - (d) Discuss the strengths and weaknesses of giving course credits to students in studies of 'false advertising'. You should include a conclusion in your answer. [5]

Psychology and health

- 3 In an attempt to understand non-adherence to medical advice, Riekert and Drotar (1999) tested adolescents aged 11–18 and their parents. The parents completed a questionnaire at the medical appointment. The adolescents and their parents completed further questionnaires at home, which were then returned by post.
- (a) Outline **one** conclusion from the study by Riekert and Drotar. [2]
- (b) (i) Suggest **two** examples of how ethical guidelines reduced the number of participants in this study. [2]
- (ii) Give **two** reasons why some participants were excluded from the study by the researchers. [2]
- (c) Explain **two** reasons why a patient might **not** adhere to medical advice. [4]
- (d) Discuss the strengths and weaknesses of gathering data about health using questionnaires to be returned by post. You should include a conclusion in your answer. [5]

Psychology and organisations

- 4 Gold et al. (1992) studied the effect of shift patterns on sleep. Fig. 4.1 shows the percentage of participants in each sleep time category per 24 hours on workdays for the four types of shift.

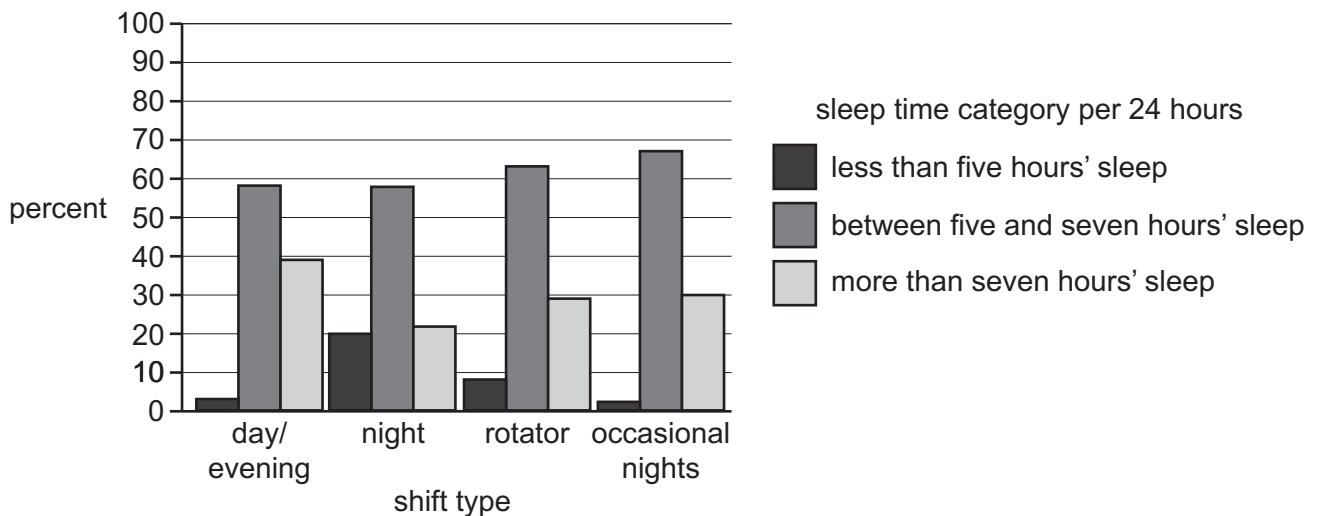


Fig. 4.1

- (a) Outline what is meant by 'rotator' in this study. [2]
- (b) Give **two** findings from the data shown in Fig. 4.1. [4]
- (c) (i) Identify **two** types of error or accident that were more likely to happen to nurses on a rotator shift in this study. [2]
- (ii) Other than errors or accidents, shiftwork can have direct effects on health.
Suggest **two** effects shiftwork could have on health. [2]
- (d) Discuss whether the findings of the study by Gold et al. can be generalised. You should consider both sides of the argument and include a conclusion. [5]

Section B

You must answer **one** question from this section.

Psychology and abnormality

- 5 (a) Design a longitudinal study using observation to investigate whether a token economy effectively manages schizophrenia. [10]
- (b) Explain the psychological and methodological evidence on which your study is based. [8]

Psychology and consumer behaviour

- 6 (a) Design an experiment to investigate gender differences in pre-cognitive decisions when buying a product. [10]
- (b) Explain the psychological and methodological evidence on which your experiment is based. [8]

Psychology and health

- 7 A child is in pain; the parent takes the child to the hospital so that a practitioner can assess the child's pain.
- (a) Design a study to investigate whether there is a correlation between the parent's rating of the child's pain and the practitioner's rating of the child's pain. [10]
- (b) Explain the psychological and methodological evidence on which your study is based. [8]

Psychology and organisations

- 8 A new machine has been designed, but it is dangerous to use. In order to reduce errors and accidents, the operator-machine system needs to be improved.
- (a) Design an experiment to investigate **one** way that the safety of the new machine could be improved. [10]
- (b) Explain the psychological and methodological evidence on which your experiment is based. [8]

Section C

You must answer **one** question from this section.

Psychology and abnormality

- 9 *'In the future a genetic explanation of schizophrenia will be the only explanation needed.'*

To what extent do you agree with this statement? Use examples of research you have studied to support your answer. [12]

Psychology and consumer behaviour

- 10 *'Children should never be used as participants in studies of advertising.'*

To what extent do you agree with this statement? Use examples of research you have studied to support your answer. [12]

Psychology and health

- 11 *'Alternative techniques are more effective for managing pain, such as chronic pain, than biochemical pain techniques.'*

To what extent do you agree with this statement? Use examples of research you have studied to support your answer. [12]

Psychology and organisations

- 12 *'Quality of working life can only be measured effectively using five-point rating scales.'*

To what extent do you agree with this statement? Use examples of research you have studied to support your answer. [12]

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