



Cambridge International AS & A Level

PSYCHOLOGY

9990/41

Paper 4 Specialist Options: Application and Research Methods

May/June 2024

1 hour 30 minutes



You must answer on the enclosed answer booklet.

You will need: Answer booklet (enclosed)

INSTRUCTIONS

- Answer **five** questions in total:
 - Answer questions from **two** options.
 - Section A: answer **four** questions.
 - Section B: 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

Answer questions from **two** options in this section.

Clinical Psychology

Answer **all** questions if you have studied this option.

- 1 The key study by Freeman et al. (2003), using virtual reality to investigate persecutory ideation, included a number of self-reports such as the VR-Paranoia questionnaire.
 - (a) (i) Give **two** examples of items (questions) included in the VR-Paranoia questionnaire. [2]
 - (ii) State **two** features of the scale used by participants to answer the VR-Paranoia questions. [2]
 - (b) Suggest **one** weakness of the type of data gathered by the VR-Paranoia questionnaire. [2]
 - (c) Explain **two** strengths of using virtual reality to treat schizophrenia. [4]

- 2 Covert sensitisation is a treatment for impulse control disorders.
 - (a) Outline how **one** study used covert sensitisation to treat a participant (e.g. Glover, 1985). [2]
 - (b) Suggest how the effectiveness of covert sensitisation could be measured using an online questionnaire. [2]
 - (c) Explain **two** strengths of psychological treatments, such as covert sensitisation, for kleptomania. [4]

Consumer Psychology

Answer **all** questions if you have studied this option.

- 3 From the key study by Becker et al. (2011) on food package design:
 - (a) Describe **two** of the dependent measures (variables) used in this study. [4]
 - (b) Suggest why 'sensitivity to the design' was controlled by Becker et al. [2]
 - (c) Explain **two** weaknesses of using a seven-point scale to measure food package design. [4]

- 4
 - (a) Outline **one** type of store interior design. [2]
 - (b) Suggest how store interior design can be investigated, other than by using virtual store layouts. [2]
 - (c) Explain **two** weaknesses of using virtual store layouts to study store interior design. [4]

Health Psychology

Answer **all** questions if you have studied this option.

- 5 In the key study by Bridge et al. (1988), the 'profile of mood states' questionnaire was used to assess the effectiveness of their relaxation and imagery treatment programme on stress.
- (a) (i) Explain why the study by Bridge et al. is longitudinal. [2]
- (ii) Compare the results for total mood disturbance for any **two** groups. [2]
- (b) Suggest how the results of total mood disturbance could be presented in a graph. [2]
- (c) Explain **two** strengths of using a longitudinal study to assess the effectiveness of relaxation and imagery on stress. [4]
- 6 (a) Explain what is meant by an 'objective measure of adherence', in relation to medical advice. Include a biological measure as an example. [2]
- (b) Suggest how adherence can be measured objectively, other than using a biological measure. [2]
- (c) Explain **two** weaknesses of using biological measures of adherence to medical advice. [4]

Organisational Psychology

Answer **all** questions if you have studied this option.

- 7 From the key study by Cuadrado et al. (2008) on women's access to managerial positions:
- (a) (i) State the **two** independent variables in this experiment. [2]
- (ii) Outline **one** dependent variable in this experiment. [2]
- (b) Suggest **one** method that could be used to study women's access to managerial positions, other than a laboratory experiment. [2]
- (c) Explain **two** weaknesses of conducting a laboratory experiment to measure women's access to managerial positions. [4]
- 8 (a) Explain what is meant by the term 'workplace sabotage'. [2]
- (b) Suggest **one** open question that workers could be asked about reasons for sabotage. [2]
- (c) Explain **two** weaknesses of collecting data about workplace sabotage from workers using an interview. [4]

Section B

Answer **one** question from this section.

Clinical Psychology

- 9 There can be problems with using electro-convulsive therapy (ECT) as a treatment for schizophrenia, for example side effects.
- (a) Plan an experiment with a longitudinal design to investigate whether there are problems with ECT as a treatment for schizophrenia.
- Your plan must include details about:
- controls
 - a directional or non-directional hypothesis. [10]
- (b) For **one** piece of psychological knowledge on which your plan is based:
- (i) Describe this psychological knowledge. [4]
- (ii) Explain how you used **two** features of this psychological knowledge to plan your experiment. [4]
- (c) (i) Explain **one** reason for your choice of controls. [2]
- (ii) Explain **one** weakness of the use of a longitudinal design in your study. [2]
- (iii) Explain **one** reason for your choice of directional or non-directional hypothesis. [2]

Consumer Psychology

- 10 Shoppers' liking of a store exterior and intention to shop at that store can be influenced by window displays.
- (a) Plan an interview to investigate the effectiveness of different window displays on intention to shop.
- Your plan must include details about:
- interview format
 - interview technique. [10]
- (b) For **one** piece of psychological knowledge on which your plan is based:
- (i) Describe this psychological knowledge. [4]
- (ii) Explain how you used **two** features of this psychological knowledge to plan your study. [4]
- (c) (i) Explain **one** reason for your choice of interview format. [2]
- (ii) Explain **one** weakness of your choice of interview format. [2]
- (iii) Explain **one** reason for your choice of interview technique. [2]

Health Psychology

- 11 (a) Plan a study using a postal questionnaire to investigate the reasons why people attend or fail to attend appointments with a medical practitioner.

Your plan must include details about:

- question format
- sampling technique. [10]

- (b) For **one** piece of psychological knowledge on which your plan is based:

(i) Describe this psychological knowledge. [4]

(ii) Explain how you used **two** features of this psychological knowledge to plan your study. [4]

- (c) (i) Explain **one** reason for your choice of question format. [2]

(ii) Explain **one** weakness with conducting postal questionnaires in your study. [2]

(iii) Explain **one** reason for your choice of sampling technique. [2]

Organisational Psychology

- 12 Workers in assembly-line industries can sabotage machinery.

- (a) Plan a study using a structured observation to investigate which is the **most** common way to sabotage machinery in assembly-line workers.

Your plan must include details about:

- behavioural categories
- steps for making the study reliable. [10]

- (b) For **one** piece of psychological knowledge on which your plan is based:

(i) Describe this psychological knowledge. [4]

(ii) Explain how you used **two** features of this psychological knowledge to plan your study. [4]

- (c) (i) Explain **one** reason for your choice of behavioural categories. [2]

(ii) Explain **one** weakness of your choice of behavioural categories. [2]

(iii) Explain **one** reason for your choice of steps for making the study reliable. [2]

BLANK PAGE

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced online in the Cambridge Assessment International Education Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download at www.cambridgeinternational.org after the live examination series.

Cambridge Assessment International Education is part of Cambridge Assessment. Cambridge Assessment is the brand name of the University of Cambridge Local Examinations Syndicate (UCLES), which is a department of the University of Cambridge.