



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]

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