Cambridge Assessment International Education

Cambridge International AS & A Level

CANDIDATE NAME

CENTRE NUMBER

CANDIDATE NUMBER

6536917451

PSYCHOLOGY **9990/22**

Paper 2 Research Methods **May/June 2025**

1 hour 30 minutes

You must answer on the question paper.

No additional materials are needed.

INSTRUCTIONS

- Answer **all** questions.
- Use a black or dark blue pen. You may use an HB pencil for any diagrams or graphs.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do **not** use an erasable pen or correction fluid.
- Do **not** write on any bar codes.

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 **12** pages. Any blank pages are indicated.

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Section A

Answer **all** questions.

1 Explain how the independent variable (IV) was operationalised in the study by Andrade (doodling).

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..... [2]

2 In the study by Hassett et al. (monkey toy preferences), some of the data was displayed on graphs. This included a comparison of time spent playing with different types of toys by males and females.

(a) Name the type of graph used to display this data.

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..... [1]

(b) Explain why this graph was a suitable way to display this data.

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..... [2]

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3 In the study by Milgram, two types of data were collected to demonstrate obedience. One example of each type was:

- voltage reached when the participant refused to continue
- comments from the participants.

(a) For the example of 'voltage reached when the participant refused to continue':

(i) Identify this type of data.

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..... [1]

(ii) State the highest voltage at which **all** participants obeyed.

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..... [1]

(b) For the example of 'comments from the participants':

(i) Identify this type of data.

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..... [1]

(ii) Outline **one** of the comments made by a participant in this study.

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..... [1]

(c) Suggest **one** strength of each type of data in this study.

1 .....

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2 .....

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[4]

4 In a study of learning, animals are taught to drop a small object into a hole.

Suggest how 'learning' could be operationalised in this study.

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..... [1]

5 In some studies, scientific equipment is used to measure variables, such as brain activity or eye movements.

Suggest **two** weaknesses of using scientific equipment to measure variables.

1 .....

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2 .....

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[4]

6 Describe order effects, using any example(s).

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..... [6]

7 Inma is observing one student at a time in the playground, to investigate how often each individual talks to other students. Inma is concerned about two uncontrolled variables:

- a student being observed when few other students are present
- a student with a headache may talk less.

(a) (i) Explain which **one** of these is a participant variable.

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..... [1]

(ii) Suggest how Inma could limit the effect of the participant variable.

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..... [2]

(b) (i) Explain which **one** of these is a situational variable.

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..... [1]

(ii) Suggest how Inma could limit the effect of the situational variable.

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..... [2]

(c) Inma is also concerned about the effect of social desirability on her results.

(i) Suggest **one** way that social desirability could affect Inma's results.

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..... [2]

(ii) Suggest how Inma might reduce the effect of social desirability on her results.

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..... [2]

8 Kong is interviewing people about friendliness. He tells his participants his study is about how they spend their free time. Kong uses two measures of friendliness:

- timing the duration of eye contact between himself and each participant
- asking the question, 'Are you excited or scared at parties?'

(a) **(i)** State which measure of central tendency Kong should use to analyse his data from timing the duration of eye contact.

.....

..... [1]

(ii) State which measure of central tendency Kong should use to analyse his data from asking participants, 'Are you excited or scared at parties?'

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..... [1]

(b) Kong's friend says that both of his measures of friendliness could be unethical, but for different reasons.

(i) Explain **one** reason why timing the duration of eye contact could break **one** ethical guideline.

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..... [2]

(ii) Explain **one** reason why asking participants, 'Are you excited or scared at parties?' could break **one** ethical guideline.

You **must** use a different ethical guideline from your answer to part **(b)(i)**.

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..... [2]

(c) Kong will use opportunity sampling.

Outline what is meant by 'opportunity sampling', using Kong's study as an example.

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..... [2]

9 Dr Shaw is planning a questionnaire about early childhood memories.

(a) There are **two** techniques for presenting a questionnaire to participants.

Identify the **two** techniques.

1 .....

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2 .....

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[2]

(b) For **one** of the questionnaire techniques that you identified in part **(a)**:

Suggest **one** reason why this would be appropriate for Dr Shaw to use.

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..... [2]

Section B

Answer **all** questions.

10 Dr Brent works in a busy hospital. There are noises from equipment and people on the wards. He thinks there might be a link between two variables:

- how noisy wards are
- the quality of patients' sleep.

(a) Describe how Dr Brent could conduct a study to investigate whether there is a correlation between how noisy wards are and the quality of patients' sleep.

Do **not** describe sample / sampling technique or ethical issues / guidelines in your answer.

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..... [10]

(b) For **one** of the variables you have described in part **(a)**:

Explain **one** practical strength and **one** practical limitation in relation to this variable.

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..... [4]

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