GradeMax

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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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.

.....

..... [1]

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

.....

..... [1]

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

1 .....

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2 .....

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[4]

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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]

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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.

.....

..... [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]

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(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]

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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?'

.....

..... [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]

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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]

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(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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