GradeMax

Cambridge Assessment International Education

Cambridge International AS & A Level

CANDIDATE NAME

CENTRE NUMBER

CANDIDATE NUMBER

PSYCHOLOGY **9990/22**

Paper 2 Research Methods **February/March 2024**

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 **(a)** Explain what is meant by a 'negative correlation'.

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..... [2]

(b) Explain **one** ethical advantage of a correlational study compared to an experiment, using any psychological example.

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..... [3]

2 The memory score in the study by Andrade (doodling) was calculated using two sources of data. One source was the number of 'correct responses' of names and places given by the participants.

Describe how the total memory score was calculated.

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..... [2]

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3 In the study by Dement and Kleitman (sleep and dreams), participants were given instructions before the study about what they should and should not do.

(a) Outline **one** of these instructions.

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..... [1]

(b) Explain why the instruction you described in part **(a)** was important to the validity of the study.

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..... [2]

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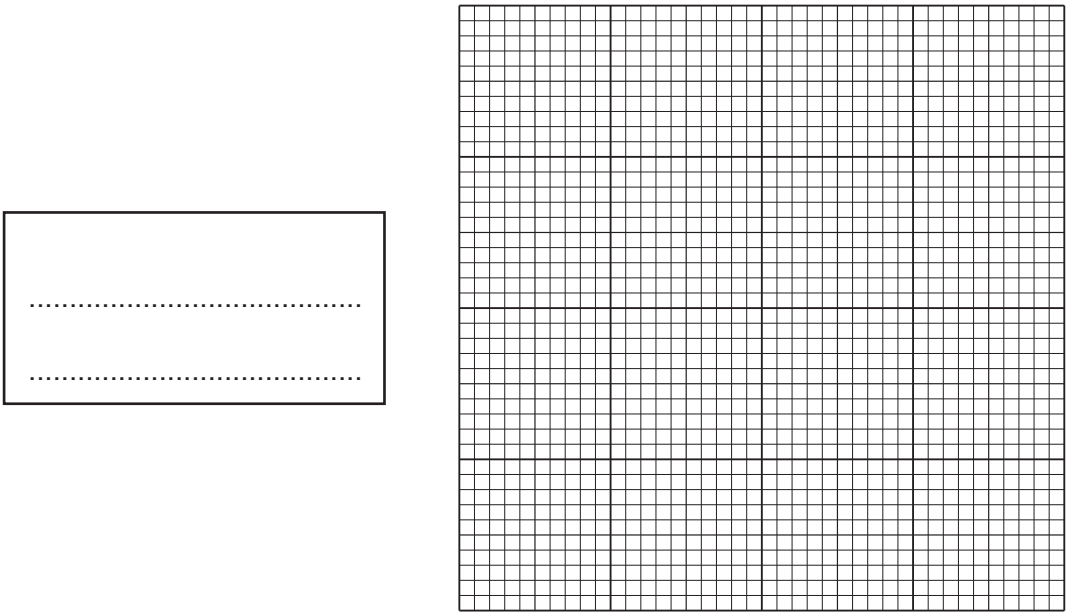
4 The study by Perry et al. (personal space) measured preferred interpersonal distance (stop distance) in a computerised virtual room.

(a) Preferred interpersonal distance was measured in relation to:
- a ball
- a friend
- a stranger
- an authority figure.

Table 4.1
Preferred interpersonal distances in the control (placebo) condition for the high empathy group

	ball	friend	stranger	authority figure
Mean stop distance	21	11	39	34

(i) Draw a bar chart of the data from Table 4.1, on the axes provided. You **must** label the axes.



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(ii) Explain why a bar chart is the appropriate graph to use to plot this data.

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..... [1]

(iii) State **one** conclusion from this data.

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..... [1]

(b) Suggest **one** ethical strength of using a computerised virtual room to measure preferred interpersonal distance.

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..... [2]

5 **(a)** **(i)** Define the term 'population'.

.....

..... [1]

(ii) Outline **one** example of a population from a core study from the social approach.

Core study: .....

Example: .....

.....
[1]

(b) **(i)** Define the term 'sample'.

.....

..... [1]

(ii) Outline **one** example of a sample from a core study from the social approach.

Core study: .....

Example: .....

.....
[1]

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[Turn over

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6 Describe practice effects and fatigue effects, using any example(s).

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..... [6]

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7 Kavi has noticed that when customers leave a takeaway restaurant, they often drop rubbish. He plans to conduct a field experiment to investigate this. Kavi will place rubbish in the street or remove any rubbish so that he can record data in two conditions:

- when the street has 10 pieces of rubbish
- when the street has no rubbish.

Kavi will observe ten customers in each condition. He will count how many customers in each condition drop rubbish.

(a) Draw a table that Kavi could use to collect his data.

[3]

(b) Kavi chose a narrow street rather than a wide street for his experiment.

Suggest **one** reason why this choice was important for the validity of Kavi's experiment.

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..... [2]

(c) Explain why it was necessary for all the rubbish to be removed in the second condition.

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..... [2]

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8 Cerys is observing a class of children who are learning to count. She is introduced to the class by the teacher, but then sits separately from the children to record her data.

(a) (i) Explain whether Cerys is conducting a participant observation or a non-participant observation.

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..... [1]

(ii) For the answer you have given in part **(a)(i)**:

Explain **one** strength of this type of observation.

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..... [2]

(b) Cerys uses a structured observation.

(i) Suggest **two** behavioural categories that Cerys could use to measure how well the children are learning to count.

1 .....

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2 .....

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[2]

(ii) In relation to using **one** of the behavioural categories you have suggested in part **(b)(i)**:

Explain **one** practical problem that Cerys could have.

Behavioural category: 1 or 2 .....

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..... [2]

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9 Nila is using a questionnaire to investigate adults' use and understanding of the internet. Four of her questions are:

A	Describe how useful the internet is to you.
B	Explain whether you would like to use the internet more than you do.
C	How confident are you that you could send an email? 1 = not confident, 5 = very confident.
D	"Using the internet can be dangerous." Do you agree? yes / no / not sure.

(a) Identify **one** closed question from A to D.

..... [1]

(b) Identify **one** open question from A to D.

..... [1]

(c) Nila wants to add this question to explore how adults use social media:

How do you use social media? Tick all that apply.
- to connect with colleagues
- to connect with family
- to discover local events.

Explain **one** strength of Nila's question about the use of social media.

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..... [2]

Section B

Answer **all** questions.

10 Henri feels relaxed when he smells flowers. He thinks that pleasant smells could influence daydreaming.

(a) Describe how Henri could conduct a laboratory experiment to investigate the effect of pleasant smells on daydreaming.

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

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(b) (i) Describe **one** practical/methodological strength of the procedure you have described in your answer to part **(a)**.

Do **not** refer to sampling or ethics in your answer.

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..... [2]

(ii) Explain why the feature of the procedure you have identified in part **(b)(i)** is a strength.

Do **not** refer to sampling or ethics in your answer.

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..... [2]

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