Cambridge Assessment International Education

Cambridge International AS & A Level

CANDIDATE NAME

CENTRE NUMBER

CANDIDATE NUMBER

9609388896

PSYCHOLOGY **9990/22**

Paper 2 Research Methods **February/March 2023**

1 hour 30 minutes

You must answer on the question paper.

You will need: Ruler

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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[Turn over

Section A

Answer **all** questions in this section.

1 A hypothesis is 'There will be no difference between how quickly men and women blink in response to a flash of light'.

Name this type of hypothesis.

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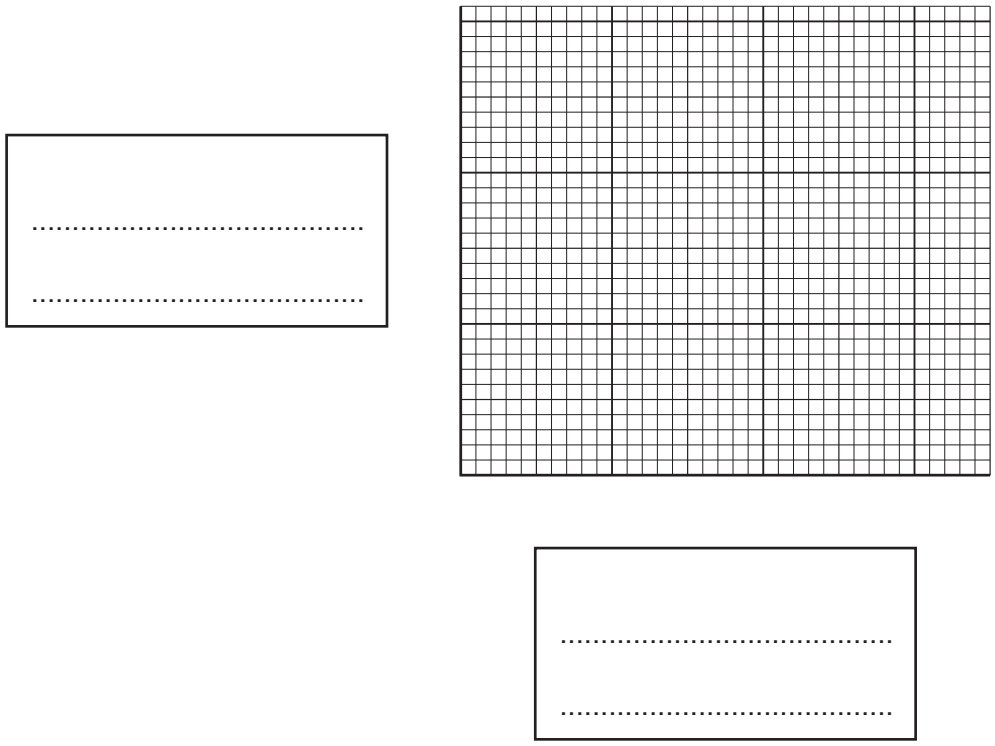
..... [1]

2 Table 2.1 shows some results from the experiment by Canli et al. (brain scans and emotions).

Table 2.1

	Emotional intensity rating (0 = 'not intense at all' to 3 = 'extremely intense')			
	0	**1**	**2**	**3**
Percentage of images forgotten	44	41	42	22

(a) Draw a graph of the data in Table 2.1 using the axes below. You **must** label the axes.



[4]

(b) Outline **one** finding about emotional intensity rating and level of forgetting, using the data in Table 2.1.

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..... [1]

3 Explain the importance of the ethical guideline of 'housing' in relation to animals.

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..... [3]

4 In the study by Laney et al. (false memory), questionnaires were used to collect data.

(a) Outline **one** difference between a questionnaire and an interview.

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(b) Explain **one** advantage of collecting data using questionnaires compared to interviews.

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..... [2]

(c) Explain **one** weakness of using questionnaires in this study.

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..... [2]

5 The research by Saavedra and Silverman (button phobia) was a case study. It used a variety of techniques including interviews and a scale (the feelings thermometer).

Suggest **one** strength of using a variety of techniques in a case study.

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..... [2]

6 Describe what is meant by the research methods of correlations and experiments, using any examples.

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Section B

Answer **all** questions in this section.

7 Gregor is planning an experiment to compare the feelings of adults who work indoors with the feelings of adults who work outdoors. He thinks that where a person works may influence how relaxed they feel at work.

(a) Suggest a quantitative measure of 'feeling relaxed' that could be used in this study.

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..... [1]

(b) Gregor thinks that variables other than where a person works could influence their feelings and he is therefore using a matched pairs design.

(i) Suggest **two** variables that would be relevant for matching participants in this study.

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2 .....

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[2]

(ii) Explain why **each** of the two variables that you suggested in **(b)(i)** would be relevant in this study.

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[4]

8 Elise is investigating whether children learn food preferences from their parents. She is conducting a self-report study to compare the food preferences of children and their parents.

(a) Elise has some ethical concerns.

(i) Some parents could feel that questions about what they eat every day are too personal.

Explain which ethical guideline Elise is concerned about here.

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..... [2]

(ii) When children answer questions about food they do not like, it could make them feel upset about their food preferences.

Explain which ethical guideline Elise is concerned about here.

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..... [2]

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(b) Elise has decided to use volunteer sampling.

(i) Explain how Elise could use volunteer sampling in her study.

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(ii) A friend suggests that Elise should use random sampling instead of volunteer sampling.

Suggest **one** advantage of using random sampling instead of volunteer sampling in Elise's study.

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(c) Elise believes that learning is the only factor affecting the children's food preferences.

Suggest why Elise's belief could lower the validity of her study.

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..... [2]

9 Samir is comparing a parrot's learning of colour words and action words. His parrot is learning four colour words (red, blue, yellow, green) and must choose a box of the same colour to receive a food reward. The parrot is also learning four action words (hop, peck, jump, squawk) and must perform the correct action to receive a food reward.

(a) Outline how Samir could operationalise the action 'jump' in his study.

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..... [1]

(b) Samir's friend Daniel says the action of 'jump' is too similar to 'hop'. His advice is that Samir should use the action of 'nod' (moving the head up and down) instead of 'hop'.

Explain why the study would be better if Samir follows Daniel's advice.

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..... [3]

(c) Samir decides that he needs to video the parrot's responses so that he can score each response twice.

Suggest why Samir made this decision.

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..... [2]

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Section C

Answer **all** questions in this section.

10 When a person pays more attention to their mobile phone than the person they are with, this is called 'phone snubbing'. Wyatt wants to investigate phone snubbing in men and women using an overt observation.

(a) Describe how Wyatt could conduct a study using an overt observation to investigate phone snubbing in men and women.

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(b) Identify **one** practical weakness/limitation with the procedure you have described in your answer to part **(a)** and suggest how your study might be done differently to overcome the problem.

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

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..... [4]

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