Cambridge International AS & A Level

CANDIDATE NAME
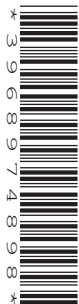
CENTRE NUMBER

CANDIDATE NUMBER

PSYCHOLOGY **9990/23**

Paper 2 Research Methods **May/June 2023**

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.

Section A

Answer **all** questions in this section.

1 (a) Describe what is meant by the term 'random sampling'.

....

....

....

.... [2]

(b) Explain **one** weakness of random sampling.

....

.... [1]

2 The study by Yamamoto et al. (chimpanzee helping) followed ethical guidelines relating to the use of animals.

Describe how **two** ethical guidelines relating to the use of animals in research were followed in this study.

1 ....

....

....

....

2 ....

....

....

....

[4]

3 In the study by Laney et al. (false memory), standard deviations were calculated.

(a) State what is meant by a 'measure of spread'.

....

.... [1]

(b) State **one** advantage of using the standard deviation compared to **one** other measure of spread.

....

....

....

.... [2]

4 In the study by Pepperberg (parrot learning), Alex the parrot was tested using the categories of:
- shape
- material
- colour.

(a) Suggest why Pepperberg chose to test the parrot using the categories of 'shape' and 'material'.

....

....

....

.... [2]

(b) Suggest **one** other category that Pepperberg could have used to test the parrot's understanding of categories.

....

.... [1]

5 The study by Dement and Kleitman (sleep and dreams) investigated two kinds of sleep: REM sleep and non-REM sleep.

State **three** differences between REM sleep and non-REM sleep.

1 ....

....

2 ....

....

3 ....

....
[3]

6 Describe the ethical guidelines of 'informed consent' and 'protection from harm', using any examples.

....

....

....

....

....

....

....

....

....

....

....

....
[6]

Section B

Answer **all** questions in this section.

7 Nigel has conducted a laboratory experiment to compare children's choice of sweets (candy) in different packets. The children were shown sweets in:
* brightly coloured packets with simple patterns
* black and white packets with complex patterns.

His results showed that more children chose the sweets from the 'brightly coloured packets with simple patterns' condition.

(a) (i) Suggest **one** other condition that Nigel could have included in his study.

....

.... [1]

(ii) Explain why the condition you suggested in **(a)(i)** would have been useful.

....

....

....

.... [2]

(b) Nigel used a repeated measures design.

Explain what is meant by a 'repeated measures design', using an example from this study.

....

....

....

.... [2]

(c) Name **one** experimental design Nigel could have used, other than a repeated measures design.

....

.... [1]

8 Mila is planning a case study to investigate how a 21-year-old person feels about being the only young person in a community of 20 older people on a small island.

(a) Suggest **two** techniques Mila could use to collect data from her participant in this study.

....

....

....

....

....

....

....

.... [4]

(b) For **one** of the techniques you suggested in **(a)**:

(i) Explain **one** advantage of this technique.

....

....

....

.... [2]

(ii) Explain **one** disadvantage of this technique.

....

....

....

....[2]

(c) Mila wants to generalise her findings to all adults who live away from other people of their own age.

Explain why Mila should **not** make this generalisation from the findings of her case study.

....

.... [1]

9 Alan and Jocelyn are writing a questionnaire to ask about the level of euphoria created by listening to music at a concert, compared with listening to music at home.

(a) (i) Suggest **one** closed question that they could use on the questionnaire to ask about euphoria.

....

.... [2]

(ii) Suggest **one** open question that they could use on the questionnaire to ask about euphoria.

....

.... [1]

(b) For the questions you suggested in **(a)(i)** and **(a)(ii)**:

(i) Explain **one** reason why the data from the open question could be more valid than data from the closed question.

....

....

....

.... [2]

(ii) Explain **one** reason why the data from the open question could be less valid than data from the closed question.

....

....

....

.... [2]

(c) Explain how Alan and Jocelyn could check their inter-rater reliability when they analyse their data.

....

....

....

.... [2]

Section C

Answer **all** questions in this section.

10 Dr Caesar is interested in animal phobias in his patients. He wants to investigate whether there is a correlation between the size of the animal causing the phobia and the severity of each patient's animal phobia.

(a) Describe how Dr Caesar could conduct a correlational study to investigate the relationship between animal size and the severity of the patients' phobias.

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

.... [10]

(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.

....

....

....

....

....

....

....

.... [4]

BLANK PAGE

BLANK PAGE

BLANK PAGE