Cambridge Assessment International Education

Cambridge International AS & A Level

CANDIDATE NAME									
CENTRE NUMBER						CANDIDATE NUMBER				

0871851536

PSYCHOLOGY **9990/23**

Paper 2 Research Methods **May/June 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 Explain what is meant by a covert observation, using any example.

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..... [2]

2 The results from the study by Andrade (doodling) included the following data about the shading of shapes by participants in the doodling group:

- the mean number per participant was 36.3
- the range was 3–110.

Outline what these **two** results show about doodling by this group of participants.

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..... [2]

3 Describe how **one** feature of the study by Milgram (obedience) helped to make the study valid.

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..... [2]

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4 One group of participants in the study by Hölzel et al. (mindfulness and brain scans) was a sample of 16 right-handed adults: 6 males and 10 females.

Explain **two** reasons why this sample may **not** be representative.

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[4]

5 Memory research is often conducted using eyewitnesses who have witnessed a real crime. Alternatively, researchers can use a simulated crime in a laboratory and ask participants what they remember.

(a) One strength of using a simulated crime in a laboratory is that it can improve objectivity.

Outline what is meant by the term 'objectivity', including an example about eyewitnesses.

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..... [2]

(b) Describe how **one** feature of the study by Pozzulo et al. (line-ups) helped to make the study objective.

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6 Describe the following experimental designs, using any example(s):
- matched pairs design
- repeated measures design.

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..... [6]

7 Yashal is planning an experiment about the effect music has on students doing their homework. She is choosing the conditions she will use.

(a) Outline what is meant by the term 'experimental condition'.

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..... [1]

(b) **(i)** Outline what is meant by the term 'control condition'.

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..... [1]

(ii) Suggest a control condition that Yashal could use in her experiment.

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..... [1]

(c) Yashal is planning to use students working at home as participants.

Explain the type of experiment Yashal would be conducting.

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..... [2]

8 A parrot rescue centre has some new parrots which need to learn to enter a cage. Their trainer is planning a procedure using operant conditioning to teach the parrots to enter the cage.

(a) Suggest **one** way that the parrots could be taught to enter the cage.

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..... [3]

(b) The success of the procedure can be measured by counting the number of days it takes each parrot to learn to enter the cage.

(i) Suggest **two** practical problems with this measurement of success.

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[4]

(ii) For **one** of the problems you suggested in part **(b)(i)**:

Suggest **one** way this problem could be solved.

Problem 1 or 2: .....

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..... [2]

(c) There are many members of staff at the rescue centre. The trainer cannot decide whether the parrots will learn better if the other staff are present or absent while the parrots are being trained.

(i) Explain **one** reason why the parrots may learn better if the other staff are present during the parrots' training.

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(ii) Explain **one** reason why the parrots may learn better if the other staff are absent during the parrots' training.

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..... [2]

9 Faiza is planning to investigate the effect of air pollution on emotion. She had planned to conduct a laboratory experiment, but rejected this for ethical reasons.

(a) Suggest **one** reason why conducting a laboratory experiment for Faiza's investigation could have been unethical.

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..... [2]

(b) Faiza decides to use geography students as participants. They are visiting a rural environment and a polluted city as part of their geography course. She will collect data in both places.

Explain **one** reason why Faiza's new plan is more ethical.

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(c) Faiza is concerned about uncontrolled variables in her study.

Suggest how **two** uncontrolled variables could affect the measurement of emotion.

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[4]

Section B

Answer **all** questions.

10 Bhaavik is interested in the relationship between shyness and happiness. He says to his friend Jim that the shy people he knows are really happy, but Jim says he knows lots of happy people who are not shy.

(a) Describe how Bhaavik could conduct a correlational study to investigate the relationship between shyness and happiness.

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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(ii) Describe one practical/methodological weakness 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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