Cambridge Assessment International Education

Cambridge International AS & A Level

CANDIDATE NAME

CENTRE NUMBER

CANDIDATE NUMBER

6024662147

PSYCHOLOGY **9990/22**

Paper 2 Research Methods **May/June 2022**

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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Section A

Answer **all** questions in this section.

1 State what is meant by 'reliability'.

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..... [1]

2 Explain the difference between 'qualitative data' and 'quantitative data'.

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..... [2]

3 Schachter and Singer (two factors in emotion) was a laboratory experiment.

(a) The participants in this study were all male. A new experiment could explore gender differences in the effect of epinephrine. However, the stooge may influence emotions differently in males and females.

Suggest how a difference between the influence of the stooge on males and females could affect the results about gender differences in the effect of epinephrine.

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..... [2]

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(b) A second new experiment could include a stooge who claims to feel ill because of the injection.

(i) Suggest how **one** participant variable could affect the results of this second new experiment.

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..... [2]

(ii) Explain **one** ethical problem with this second new experiment.

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..... [2]

4 In the study by Baron-Cohen et al. (eyes test), eight problems of validity were identified with the original version of the eyes test. Two of these problems were that:

- the task involved a forced choice between only two response options (the two words presented)
- the test included basic mental states.

(a) Explain why each of these problems affected the validity of this study.

the task involved a forced choice between only two response options .....

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the test included basic mental states .....

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[4]

(b) Explain how solving **one** of these problems improved the validity of the eyes test.

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..... [2]

5 In the study by Milgram (obedience), the sample included a range of occupations.

Name **two** of these occupations.

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2 .....
[1]

6 Describe the use of 'open questions' and 'closed questions' in research, using any examples.

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..... [6]

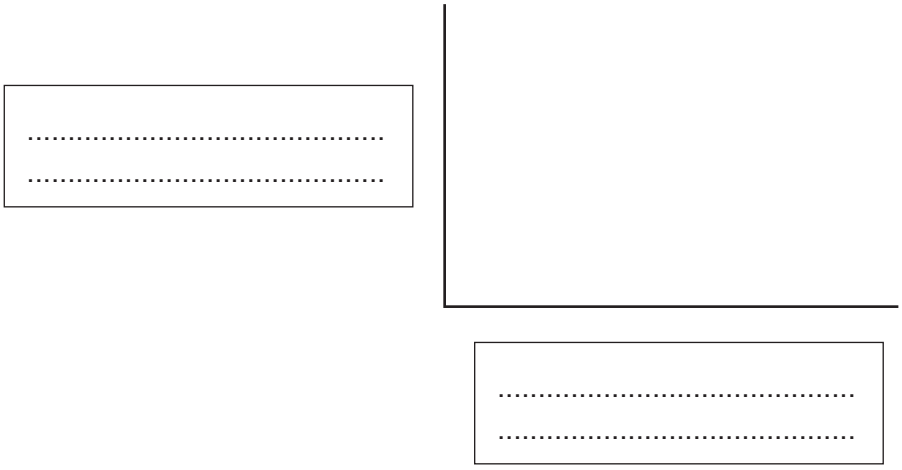
Section B

Answer **all** questions in this section.

7 Geoffrey is conducting structured interviews about people's use of social media. He is investigating how much time people spend on social media and how positive they feel about it.

(a) Geoffrey finds that the time participants spend on social media is normally distributed.

Sketch the shape of this normal distribution using the axes below. You **must** label the axes.



[3]

(b) Geoffrey finds that some participants give interesting responses, but he does not explore their use of social media further.

(i) Explain **one** practical reason why using a structured interview means that Geoffrey **cannot** explore these participants' use of social media further.

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..... [2]

(ii) Explain **one** ethical reason why Geoffrey may choose **not** to explore these participants' use of social media further.

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..... [3]

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Question 8 appears on the next page.

8 Faolan is investigating teachers' attitudes and behaviours towards students doodling. She has conducted a semi-structured interview and has observed the teachers in the classroom.

(a) (i) Faolan asks each teacher to rate how annoyed they feel when a student in their class doodles.

Suggest a scale that Faolan could use to measure how annoyed the teachers are.

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..... [1]

(ii) Explain **one** problem with the scale that you have suggested in **(a)(i)**, including how this would affect the results.

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..... [2]

(b) Faolan is interested to know whether teachers show the same behaviours in the classroom when students doodle as they reported during the interview.

(i) Suggest **two** reasons why the teachers' interview responses may differ from their behaviour in the classroom. Your answers should **not** relate to the scale you suggested in **(a)(i)**.

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2 .....

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[4]

(ii) If Faolan finds that teachers do not show the same behaviours in the classroom as they report during the interview, this raises an ethical issue.

Suggest why it could be difficult for Faolan to follow the ethical guideline of 'protection from harm' when she explains her results to the participants.

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..... [1]

9 Tulip is conducting a study on social behaviour in animals. She is investigating whether animals are more sociable when they are in a large laboratory cage or a small laboratory cage.

(a) Tulip has to decide which species to use.

Explain how **one** ethical guideline relating to animals would affect her decision.

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..... [2]

(b) Tulip is finding a median. She puts her scores in order.

State what a researcher should do to find the median if there are two middle numbers.

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..... [1]

(c) Explain how Tulip would find the range of the number of sociable behaviours of the animals in the small cage.

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..... [2]

(d) Explain why it would be appropriate for Tulip to use counterbalancing if she chose a repeated measures experimental design.

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..... [3]

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Section C

Answer **all** questions in this section.

10 Enfys wants to investigate whether different types of shopper are more relaxed than others. For example, whether shoppers with trolleys/carts are more relaxed than shoppers with baskets.

(a) Describe how Enfys could conduct a natural experiment to investigate whether some types of shopper are more relaxed than other types of shoppers. You may choose to compare shoppers with trolleys/carts and baskets or any other different types of shopper.

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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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