Cambridge Assessment International Education

Cambridge International AS & A Level

CANDIDATE NAME

CENTRE NUMBER

CANDIDATE NUMBER

5247662529

PSYCHOLOGY **9990/21**

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

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 in this section.

1 From the study by Bandura et al. (aggression):

(a) Describe how the quantitative data was collected in this study.

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..... [2]

(b) Suggest **one** advantage of using quantitative data in this study.

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..... [2]

2 A study has the experimental hypothesis 'Older people will forget more often than younger people'. This is a 'directional hypothesis' rather than a 'non-directional hypothesis'.

Explain what makes this a 'directional hypothesis'.

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..... [2]

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3 A problem in experimental studies is the presence of uncontrolled variables. One uncontrolled variable in the study by Andrade (doodling) was how likely each participant was to daydream.

(a) Describe what is meant by an 'uncontrolled variable'.

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..... [1]

(b) Explain why the uncontrolled variable of daydreaming was a problem in this study.

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..... [2]

4 A correlational study tested the idea that the amount of time spent using a phone is linked to quality of sleep.

(a) **(i)** State the relationship between the variables measured in this study, if a positive correlation was found.

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..... [1]

(ii) State the relationship between the variables measured in this study, if a negative correlation was found.

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..... [1]

(b) Suggest **one** reason why it was more appropriate to conduct a correlational study rather than an experiment to test this idea.

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..... [2]

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5 In the study by Piliavin et al. (subway Samaritans), one way that data was collected was by listening to the comments made by subway passengers. Differences were reported in relation to the type of victim the comments referred to.

(a) Describe **one** of these differences.

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..... [2]

(b) Suggest **one** problem the observers could have had when listening to the comments made by subway passengers.

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..... [1]

6 Describe what is meant by a 'semi-structured interview' and an 'unstructured interview', using any examples.

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Section B

Answer **all** questions in this section.

7 Rhiain is investigating how much time babies spend in REM sleep. She thinks that bigger babies will spend more time in REM sleep than smaller babies.

(a) State the aim of Rhiain's study.

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..... [1]

(b) One technique that Rhiain could use to measure REM sleep duration is an EEG (electroencephalograph).

(i) Suggest **one** disadvantage of using this technique in Rhiain's study.

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(ii) Suggest why using **one** other technique to measure REM sleep duration would be more appropriate in this study.

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(c) Rhiain also wants to know whether babies who are in REM sleep are having dreams but the babies cannot answer questions about the content of their dreams.

Suggest how Rhiain could observe the babies during REM sleep to investigate the content of their dreams.

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..... [2]

8 Kylo is planning a case study to investigate the importance of a pet/domesticated animal in the life of an elderly person.

(a) When choosing his sample of one elderly person he has several decisions to make.

Suggest who Kylo should look for as a participant, including:
- the pet/domesticated animal they have and why the elderly person has this animal
- **one** other decision he must make when choosing his participant.

Do **not** refer to sampling techniques in your answer.

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(b) (i) Suggest **one** technique Kylo could use to collect data from his participant in his case study.

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(ii) Explain **one** advantage of the technique you suggested in **(b)(i)**.

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(iii) Explain **one** disadvantage of the technique you suggested in **(b)(i)**.

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..... [2]

9 Rory is investigating factors that affect feeding behaviour in animals.

(a) Rory has chosen to observe the feeding behaviour of some fish.

Suggest **one** problem Rory could have when observing these fish.

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..... [1]

(b) Rory will keep these fish in a container filled with water.

Suggest **one** other feature related to 'housing' that Rory should consider.
Do **not** refer to feeding in your answer.

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..... [2]

(c) Explain why using fish will limit the generalisability of Rory's findings.

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..... [2]

Section C

Answer **all** questions in this section.

10 Gareth wants to investigate whether people are more friendly to each other after a positive public event, for example, a festival or a celebrity wedding.

(a) Design a natural experiment to test whether a positive public event makes people more friendly to each other. You may use any positive public event.

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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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