



Cambridge International AS & A Level

CANDIDATE
NAME

CENTRE
NUMBER

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PSYCHOLOGY

9990/23

Paper 2 Research Methods

October/November 2020

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. Blank pages are indicated.

Section A

Answer **all** questions in this section.

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

(a) Identify **one** example of quantitative data collected in this study.

.....
..... [1]

(b) Explain **one** advantage of collecting quantitative data in this study.

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..... [2]

2 In the study by Andrade (doodling), the participants were people from the general public who were members of an Applied Psychology Unit participant panel.

Explain **one** advantage and **one** disadvantage of using participants from a participant panel in this study.

Advantage:
.....
.....
.....

Disadvantage:
.....
.....
..... [4]

3 Carrie is studying when people decide to eat meals and the quality of their sleep. She is worried about variables that could affect when people decide to eat meals, and the effect these could have on validity.

(a) (i) Suggest **one** participant variable that could affect when people decide to eat meals.

.....
..... [1]

(ii) Explain how this participant variable could affect the validity of Carrie's study.

.....
..... [1]

(b) (i) Suggest **one** situational variable that could affect when people decide to eat meals.

.....
..... [1]

(ii) Explain how this situational variable could affect the validity of Carrie's study.

.....
..... [1]

4 Dement and Kleitman studied participants who were asleep.

Explain **one** limitation in research with participants who are asleep that does not apply to participants who are awake. You must refer to the study by Dement and Kleitman in your answer.

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..... [2]

5 (a) Explain what is meant by the ethical guideline of 'reward' in relation to animals in psychological research.

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..... [1]

(b) Describe how the ethical guideline of 'species and strain' affects what psychologists should, or should not, do with animals.

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..... [2]

6 Describe the similarities and differences between a structured and an unstructured interview, using any examples.

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..... [6]

Section B

Answer **all** questions in this section.

7 A company is having a new kitchen built that will produce better quality food for its workers so will improve work output. Cedric measures work output three weeks before the new kitchen opens, as a baseline. He finds work output is low. When Cedric measures work output again three weeks after the new kitchen opens, he finds that work output is higher.

(a) State how Cedric could operationalise the independent variable in his study.

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..... [2]

(b) State how Cedric could operationalise the dependent variable in his study.

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..... [2]

(c) (i) Suggest **one** extraneous variable that could affect Cedric's results.

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..... [1]

(ii) Explain why it is necessary to control this variable in this study.

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..... [1]

(iii) Suggest **one** way that Cedric could control this variable.

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..... [2]

(d) Cedric's study was a natural experiment.

Give **one** reason why Cedric had to choose this method for his study.

.....
..... [1]

8 Jeni implanted false memories about feeling ill in two different contexts:

- relating to food
- relating to location.

Her laboratory experiment tested participants' confidence that these 'memories' were true. She used a ten-point rating scale to measure this confidence.

(a) (i) Suggest why Jeni used a ten-point rating scale for confidence rather than asking participants if they were confident in the 'memory' or not.

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..... [2]

(ii) Suggest **one** disadvantage of using a ten-point rating scale in this study.

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..... [2]

(b) Jeni knew that many factors could affect memory and she wanted to obtain results that could be generalised beyond her sample.

(i) Identify **one** sampling technique that Jeni could have used to obtain a representative sample.

.....
..... [1]

(ii) Suggest how Jeni could have obtained a sample using the sampling technique you have suggested in (b)(i).

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..... [2]

9 Daniel is planning a correlational study. He is investigating the relationship between how happy a person is and how many friends they have.

(a) Suggest how Daniel could operationalise each variable.

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..... [4]

(b) Explain why Daniel should be concerned about the subjectivity of his data about happiness.

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..... [2]

(c) Explain why Daniel should be concerned about **one** extraneous variable that could affect his data about friendships.

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..... [2]

Question 10 appears on page 10

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..... [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.

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..... [4]

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