Cambridge International AS & A Level

Cambridge International Examinations
Cambridge International Advanced Subsidiary and Advanced Level

CANDIDATE NAME	
CENTRE NUMBER	
CANDIDATE NUMBER	

6588772942

PSYCHOLOGY **9990/21**

Paper 2 Research Methods **May/June 2018**

1 hour 30 minutes

Candidates answer on the Question Paper.

No Additional Materials are required.

READ THESE INSTRUCTIONS FIRST

Write your Centre number, candidate number and name in the spaces at the top of this page.
Write in dark blue or black pen.
You may use an HB pencil for any diagrams or graphs.
Do not use staples, paper clips, glue or correction fluid.
DO **NOT** WRITE IN ANY BARCODES.

Answer **all** questions.

At the end of the examination, fasten all your work securely together.
The number of marks is given in brackets [ ] at the end of each question or part question.

This document consists of **10** printed pages and **2** blank pages.

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Section A

Answer **all** questions in this section.

1 In the study by Canli et al. (brain scans and emotions), one variable was investigated by comparing neutral and negative scenes.

(a) Is this an independent or a dependent variable? Include a reason for your answer.

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.....[1]

(b) Outline how Canli et al. operationalised this variable.

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.....[1]

2 The study by Saavedra and Silverman investigated a boy with a phobia of buttons.

(a) Identify the research method used in this study.

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.....[1]

(b) Suggest **one** advantage of the research method in this study.

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.....[2]

3 Many of the core studies were laboratory experiments.

(a) Explain **two** similarities between a laboratory experiment and a field experiment, using any core studies as examples.

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.....[4]

(b) Explain **one** difference between a laboratory experiment and a field experiment, using any core study as an example.

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.....[2]

4 What does standard deviation measure?

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.....[2]

5 From the study by Laney et al. (false memory):

(a) Identify **one** ethical guideline that was followed in this study.

.....[1]

(b) Outline how this ethical guideline was followed in this study.

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.....[1]

(c) State why this ethical guideline was important in this study.

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.....[1]

6 Describe what is meant by 'order effects', using any examples.

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.....[6]

Section B

Answer **all** questions in this section.

7 Kaleem is planning to investigate sleep and dreaming. He needs to find participants.

(a) Outline **one** sampling technique that Kaleem could use to find a representative sample.

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.....[2]

(b) Suggest **two** features of the participants that Kaleem should consider to make his sample representative.

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(c) Explain why **one** of the features you suggested in part **(b)** would be important in Kaleem's study.

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8 Penny is using cats and parrots in her experiment. Penny houses each animal alone and only gives them their daily food every evening. Her independent variable is the species. She thinks that parrots will share food because they are social animals whereas cats live on their own. To test this, two animals of the same species are put together with a small bowl of food every afternoon.

(a) Penny's dependent variable is whether the animals share the food.

Suggest how she could operationalise this dependent variable.

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(b) Explain why the timing for the animals' daily feed is a potential ethical issue.

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(c) Explain why the housing of the parrots was less ethical than the housing of the cats.

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(d) Penny has decided that she will be a covert observer.

Suggest why she chose to be a covert observer in her study.

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(e) Write an operationalised non-directional (two-tailed) hypothesis for Penny's experiment.

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9 Don and Pinja are planning to test whether older or younger people lose their way more often, even when using a map. They will time how long it takes each participant to find their way between two places in their university, using a map. They are talking about how to find participants and how to start the study. They often see older people returning from the shops in the morning and younger people after school in the evening.

(a) Don wants to tell every participant where they are on the map at the start of the test.

Explain why this would be important.

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(b) Pinja says they should test all the participants at midday rather than testing them whenever they see them.

Explain why this would be important.

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(c) Identify **two** participant variables, other than age, and suggest how these could be controlled in this experiment.

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Section C

Answer **all** questions in this section.

10 Fajar has noticed that some of the younger children in her school believe their toys have feelings but the older children generally do not. She wants to find out more about what children believe and when beliefs change. She is planning to use a questionnaire.

(a) Describe how Fajar could conduct a study using a questionnaire to find out about the children's beliefs.

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(b) Identify **one** 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.

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