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Cambridge International AS & A Level

Cambridge International Examinations
Cambridge International Advanced Subsidiary and Advanced Level

CANDIDATE NAME

CENTRE NUMBER | | | | | |

CANDIDATE NUMBER | | | | |

1083942407

PSYCHOLOGY **9990/21**

Paper 2 Research Methods **October/November 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 **9** printed pages and **3** blank pages.

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Section A

Answer **all** questions in this section.

1 **(a)** Explain what is meant by a 'repeated measures design'.

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.....[1]

(b) Suggest **one** advantage of using a repeated measures design, using any core study as an example.

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.....[2]

2 The study by Pepperberg (parrot learning) used an animal.

Explain what is meant by 'deprivation' and 'aversive stimuli' in animal research.

deprivation.....

.....

aversive stimuli.....

.....[2]

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3 **(a)** Explain what is meant by 'reliability', using **one** example from the study by Bandura et al. (aggression).

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.....[2]

(b) Suggest **one** problem with reliability in any core study, other than the Bandura et al. study.

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.....[2]

4 In the study by Milgram (obedience), the results he recorded were the final voltage each participant gave to the learner.

(a) State the range of these results.

.....

.....[1]

(b) Milgram could have calculated the mean and range of the final voltages given.

(i) Explain what information the range provides about a set of data, using Milgram's results as an example.

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.....[2]

(ii) Explain why it would have been better for Milgram to calculate the standard deviation rather than the range.

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.....[2]

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5 Explain why low validity would be a problem in experiments.

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.....[2]

6 Describe the similarities and differences between naturalistic and controlled observations, using any examples.

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.....[6]

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Section B

Answer **all** questions in this section.

7 Gavin is testing the hypothesis that 'People are more likely to drop rubbish on the ground when there is already rubbish on the ground'. He is conducting a field experiment in a quiet street. His independent variable is whether the street already has rubbish on the ground or not. Gavin's dependent variable is whether people drop a leaflet given to them by a stooge onto the ground or not.

(a) State the type of hypothesis Gavin is testing. Include a reason for your answer.

.....

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.....[2]

(b) Outline **one** way in which the participants in Gavin's study are being deceived.

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.....[1]

(c) Explain **one** reason why Gavin chose to conduct a field experiment rather than a laboratory experiment.

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.....[3]

(d) Explain **one** disadvantage of using a field experiment in Gavin's study.

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.....[2]

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8 Lakha is planning to conduct a study to correlate helpfulness and intelligence. She is going to ask her participants to use an online IQ test and is going to measure helpfulness in the laboratory.

(a) Suggest **one** way that Lakha could measure helpfulness for her correlation.

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.....[2]

(b) Suggest **one** advantage of the measure of helpfulness that you gave in part **(a)**.

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.....[2]

(c) Name the type of graph Lakha should use to plot her results.

.....[1]

(d) Describe the pattern Lakha will see in her results if she finds a negative correlation between the two variables. You may use a drawing in your answer.

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.....[1]

(e) A problem with the participants doing an online IQ test at home is that they may cheat.

Explain the effect this would have on the negative correlation if only the less helpful participants cheated.

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.....[2]

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9 Kyle conducted an investigation into doodling during lessons by boys and girls. He counted the number of doodles and how much paper was used per hour when doodling. He had several concerns about uncontrolled variables in his study.

(a) Define quantitative data, using Kyle's data as an example.

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.....[2]

(b) Kyle observed doodling in different lessons and was concerned that the science lessons may have been more interesting than other subjects.

Name this type of uncontrolled variable **and** explain why it could be a problem.

uncontrolled variable: .....

.....

why it could be a problem: .....

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.....

.....[3]

(c) On one of the days Kyle collected data, the girls had been on a school trip the day before, so may have been tired, but the boys had not.

Name this type of uncontrolled variable **and** explain why it could be a problem.

uncontrolled variable: .....

.....

why it could be a problem: .....

.....

.....

.....[3]

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Section C

Answer **all** questions in this section.

10 Emma is planning to conduct an interview-based study about how well people think their pets/ domesticated animals learn, for example whether cats learn to respond to their names.

(a) Describe how Emma could conduct her interview-based study to discover what people think about how well their pets/domesticated animals learn.

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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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