Cambridge International AS & A Level

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CANDIDATE NAME

CENTRE NUMBER

CANDIDATE NUMBER

8377658036

PSYCHOLOGY **9990/23**

Paper 2 Research Methods **May/June 2019**

1 hour 30 minutes

Candidates answer on the Question Paper.

Additional Materials: Ruler

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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Cambridge Assessment International Education

[Turn over

Section A

Answer **all** questions in this section.

1 **(a)** State what is meant by 'participant variables'.

.....

..... [1]

(b) Suggest **one** participant variable that could have affected the level of obedience in the study by Milgram.

.....

..... [1]

2 In the study by Baron-Cohen et al. (eyes test), a correlation was found.

(a) Describe the correlation found between the Eyes Test score and the Autism Spectrum Quotient (AQ).

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..... [2]

(b) Explain why a researcher in a correlational study could **not** conclude that there was a causal relationship between variables.

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..... [2]

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3 **(a)** Explain what is meant by the term 'order effects'.

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..... [2]

(b) Explain **one** reason why there were no order effects in the study by Canli et al. (brain scans and emotions).

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..... [2]

4 **(a)** State what the standard deviation measures.

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..... [1]

(b) State **one** advantage of using the standard deviation, rather than using the range.

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..... [1]

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[Turn over

5 In the study by Pepperberg (parrot learning), many variables were controlled.

(a) Explain why it is important to control extraneous variables in experimental studies.

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..... [2]

(b) Identify **one** uncontrolled variable in the study by Pepperberg **and** suggest how this could have affected the results.

uncontrolled variable .....

.....

effect .....

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[2]

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 Carol is interested in theory of mind. She is comparing adults in 'caring' jobs such as nursing with adults in 'non-caring' jobs that have less contact with the public. Carol believes that adults in caring jobs will score higher on the Eyes Test than those in non-caring jobs.

(a) Write a **null** hypothesis for Carol's study.

.....

..... [1]

(b) Carol obtains a sample from 2000 people who found a job through an employment website. Each person has an equal chance of being in her sample.

(i) Name the sampling technique that Carol used.

..... [1]

(ii) Explain why it is an advantage that each person had an equal chance of being in Carol's sample.

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..... [2]

(c) Explain the experimental design being used in Carol's study.

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..... [2]

(d) Carol intends to draw a graph of the median Eyes Test score for each group of participants.

(i) Explain why the median was the **most** suitable measure of central tendency for Carol to use.

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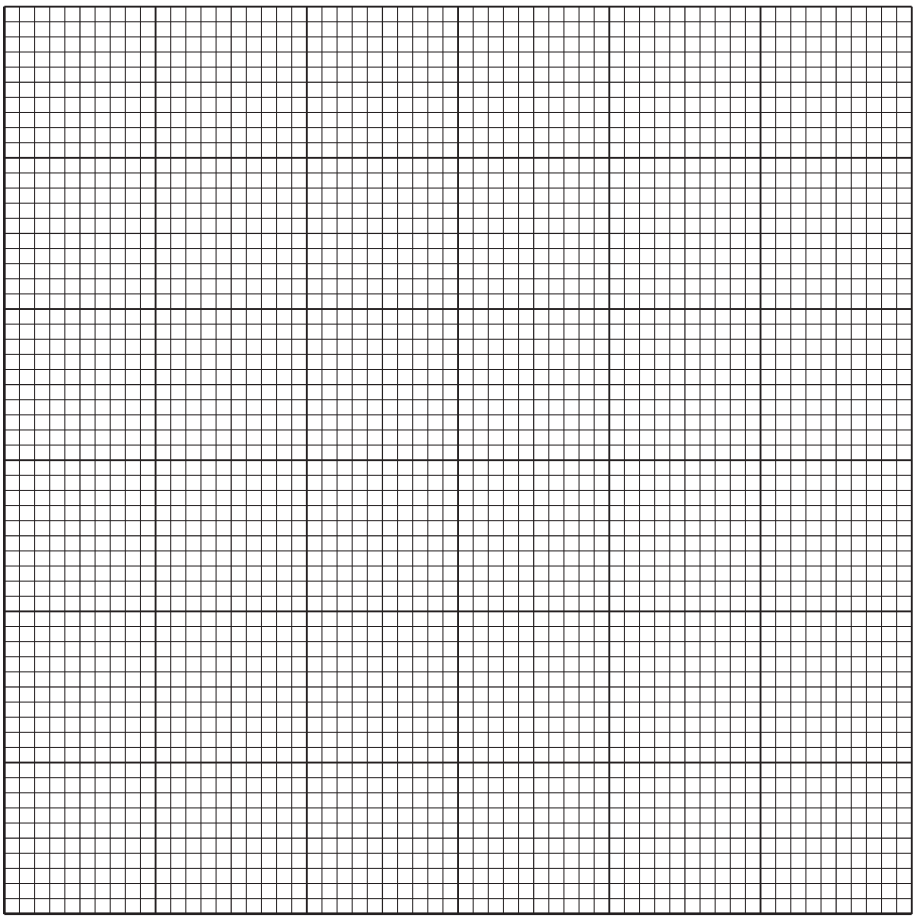
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..... [2]

(ii) Carol found that the median Eyes Test score for the caring job participants was 30/36 and the median Eyes Test score for the non-caring job participants was 20/36.

Draw an appropriate graph of these results on the axes below. You must label both axes.



[4]

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8 Misha and Dalman are conducting interviews with elderly people to find out how their dreams have changed with age. Misha thinks it is essential to gain information from each participant using the same questions. Dalman thinks it would be better to be able to vary the questions used with each participant.

(a) Identify the type of interview that Misha wants to use **and** explain **one** advantage of this type of interview.

type of interview: .....

advantage: .....

.....

[2]

(b) Identify the type of interview that Dalman wants to use **and** explain **one** advantage of this type of interview.

type of interview: .....

advantage: .....

.....

[2]

9 Aram plans to use a controlled observation to record the behaviour of children in the play area of a classroom.

(a) Explain what is meant by a 'controlled observation', using Aram's study as an example.

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..... [2]

(b) Suggest how Aram could operationalise **one** behaviour that he could observe in the play area.

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..... [2]

(c) Suggest **two** controls that Aram could use to keep the play area the same for all his observations.

1 .....

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2 .....

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[2]

(d) Suggest **one** reason why it would be better for Aram to be an overt, participant observer, rather than a covert, non-participant observer.

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..... [2]

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Section C

Answer **all** questions in this section.

10 Elio is planning a field experiment to investigate whether office layout affects laziness. The two types of office he is comparing are big open-plan shared offices and individual offices with walls and doors that make them more private.

(a) Describe how Elio could conduct a field experiment to test whether the type of office layout affects laziness.

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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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