



CANDIDATE
NAME

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CENTRE
NUMBER

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NUMBER

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9990/23

May/June 2021

1 hour 30 minutes

You must answer on the question paper.

No additional materials are needed.

- 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.

- 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.

Section A

Answer **all** questions in this section.

- 1 (a) State what is meant by the 'aim' of a study.

.....
 [1]

- (b) Outline **one** aim of the study by Piliavin et al. (subway Samaritans).

.....
 [1]

- 2 The study by Canli et al. (brain scans and emotions) raised ethical issues of 'right to withdraw' and 'protection from harm'.

Explain why the study by Canli et al. raised these ethical issues.

right to withdraw

 protection from harm

 [4]

3 In the study by Laney et al. (false memory), random allocation was used.

(a) Explain what is meant by 'random allocation', using this study as an example.

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..... [2]

(b) Explain **one** strength of using random allocation in this study.

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..... [2]

4 In the study by Bandura et al. (aggression), children were shown a room full of attractive toys to play with but were told they were for other children.

Explain **one** of the two reasons Bandura et al. gave for doing this.

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.....

.....

..... [2]

- 5 Two studies are using different methods to investigate the topic of dreaming in deaf people:
- Dr Kahlil is studying Joseph, who is deaf and has dreams about people using sign language.
 - Dr Hart is studying six deaf people and six hearing people to compare the length of their REM periods.

(a) Explain which **one** of these investigations is a case study.

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..... [2]

(b) Explain **one** strength of using a case study to investigate this topic.

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..... [2]

- 6 Describe positive correlations and negative correlations, using any examples.

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..... [6]

Section B

Answer **all** questions in this section.

- 7 Jane is planning a laboratory experiment with two groups of participants. One group speaks one language fluently and the other group speaks two or more languages fluently. Jane thinks this may affect her dependent variable of how well they learn 'nonsense' words. These are words that read like real words but have no meaning.

- (a) Jane has two possible ways to measure her dependent variable:

- by timing how quickly the participant can recall 10 nonsense words correctly
- by counting the number of spelling errors made when recalling 10 nonsense words.

- (i) Explain **one** strength of **one** of Jane's measures of her dependent variable.

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..... [2]

- (ii) Explain **one** weakness of the measure of the dependent variable that you have referred to in (a)(i).

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..... [2]

- (b) Suggest **one** way that Jane can operationalise 'speaking a language fluently'.

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..... [2]

- (c) Jane used an independent measures design in her experiment.

Explain **one** reason why it would have been better for Jane to use a matched pairs design than an independent measures design.

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..... [2]

- 8 Kofi is planning an observation of aggression in sport. He will attend a range of different sporting events to record aggressive behaviour. At first, Kofi is not certain what kinds of behaviours he will see.

- (a) (i) Explain why, at first, Kofi uses an unstructured observation.

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..... [2]

- (ii) After watching different sports, Kofi can now use a structured observation.

Explain **one** strength of using a structured observation in Kofi's study.

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..... [2]

(b) Kofi has decided to be a covert observer.

(i) Suggest **one** strength of being a covert observer in this study.

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..... [2]

(ii) Suggest **one** weakness of being a covert observer in this study.

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..... [2]

9 Naia wants to interview young people about how environmental issues make them feel. She wants to collect data about emotional responses to issues such as recycling. She has decided to conduct a structured interview.

(a) Suggest **one** open question Naia could ask about emotions.

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..... [1]

(b) Suggest **one** closed question Naia could ask about emotions.

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..... [1]

(c) Suggest **one** weakness of using a structured interview in Naia's study.

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..... [2]

- (d) One participant says that Naia's questions are too personal.

Explain **two** ethical guidelines that are important to overcome this problem.
Do **not** refer to protection from harm or right to withdraw in your answer.

1

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2

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[4]

10 Riley notices that children at his school appear to be nicer to each other at morning play time than at afternoon play time.

- (a) Describe how Riley could conduct a natural experiment to investigate when the children are nicer.

This image shows a full page of a handwriting practice worksheet. It consists of multiple sets of three horizontal dashed lines spaced evenly down the page, providing a guide for letter height and placement. The background is plain white, and there are no other markings or text present.

Do **not** refer to ethics or sampling in your answer.

[4]

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