



CANDIDATE
NAME

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9990/22

February/March 2021

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 [].

[Turn over

Section A

Answer **all** questions in this section.

- 1 (a) Outline what is meant by a 'questionnaire'.

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..... [2]

- (b) Explain **one** advantage of using a questionnaire rather than an interview in research.

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- 2 Outline what is meant by an 'aim'. Include an example from **one** core study from the cognitive approach in your answer.

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..... [2]

3 The study by Milgram (obedience) used volunteer sampling.

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

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(b) Suggest **two** ways that Milgram could have obtained a volunteer sample with a wider variety of participants.

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4 In the study by Piliavin et al. (subway Samaritans), participant variables may have affected the results.

Explain what is meant by 'participant variables', using this study as an example.

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..... [2]

- 5 Dement and Kleitman (sleep and dreams) used a sample of volunteers.

Suggest why this sample may **not** have been representative of sleep and dreams in the general population.

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..... [2]

- 6 Describe the ethical guidelines of 'numbers' and 'replacement' in relation to animals, using any examples.

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Section B

Answer **all** questions in this section.

- 7 Uma has a bird feeder in her garden. When she moved the bird feeder, some species of bird were faster to find it than others. Uma has moved the feeder a second time and is conducting an observational study to investigate which bird species are faster to learn the new location of the bird feeder.

- (a) Uma is going to use a structured observation.

Suggest how she could record her data.

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- (b) Uma cannot decide how many different bird species to observe.

- (i) Suggest **one** reason why it would be better to record a small number of different species.

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..... [2]

- (ii) Suggest **one** reason why it would be better to record a large number of different species.

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..... [2]

- 8 Dr Malt is testing whether a new drug to improve attention in mental health patients is better than an old drug. In her experiment, she is measuring the patients' attention to a stimulus.

(a) Explain what is meant by an 'independent variable', using Dr Malt's study as an example.

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(b) (i) Suggest how Dr Malt could operationalise her dependent variable.

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..... [1]

(ii) Explain **one** advantage of operationalising the dependent variable in this way.

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..... [2]

(c) Dr Malt decides she must use deception. She tells the participants in both the 'new drug group' and the 'old drug group' that they are receiving the new drug.

(i) Suggest **one** reason why it is important for Dr Malt to deceive her participants.

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(ii) Suggest **one** reason why it is an ethical problem that Dr Malt is deceiving her participants.

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..... [1]

(iii) Suggest how Dr Malt could reduce the problem you have identified in part (c)(ii).

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..... [1]

- 9 Zhu is conducting a correlational study in a factory to investigate the relationship between two variables:

- the number of hours an employee works
- how happy that employee is.

(a) Suggest **one** way that Zhu could record the number of hours an employee works.

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(b) Suggest **one** way that Zhu could record how happy each employee is.

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(c) For her sample, Zhu is looking for a factory where there is a variety of jobs for the employees.

Suggest **two** reasons why this is important.

1

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..... [4]

10 Cari thinks that adults wearing brightly coloured clothing are more helpful to children than adults wearing clothing that is not brightly coloured. She is planning a field experiment to investigate which adults are more likely to return a ball to children who have kicked it out of reach.

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- This image shows a full page of a document template designed for handwriting practice or general writing. It consists of approximately 20 evenly spaced, horizontal dotted lines running across the entire width of the page. The background is plain white, and there are no margins, headers, footers, or other markings present.

(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.

[4]

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