



CANDIDATE
NAME

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CENTRE
NUMBER

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CANDIDATE
NUMBER

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9990/12

February/March 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.

Answer **all** questions.

1 From the study by Dement and Kleitman (sleep and dreams):

(a) Name the stage of sleep when participants recalled most of their dreams.

..... [1]

(b) Outline **one** dream reported by a participant that had vertical eye movements.

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.....
..... [2]

(c) Outline **one** conclusion from this study.

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..... [2]

- 2 In the study by Piliavin et al. (subway Samaritans), one observer watched passengers in the critical area.

(a) Name **two** variables this observer recorded about these passengers.

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..... [2]

(b) Piliavin et al. investigated the idea of 'diffusion of responsibility'.

(i) Outline what is meant by 'diffusion of responsibility'.

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..... [2]

(ii) Outline **one** finding that did **not** support diffusion of responsibility in this study.

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..... [2]

- 3 Explain one or more real-world applications of the study by Bandura et al. (aggression). Do **not** refer to more than three applications in your answer.

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..... [5]

4 From the study by Canli et al. (brain scans and emotions):

(a) Name **two** characteristics that were used to match the foil scenes and the previously viewed scenes.

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2 [2]

(b) Describe the participants used in this study.

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..... [3]

(c) Explain why this study is from the biological approach.

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..... [2]

- 5 In the study by Milgram (obedience), there was a victim (learner) and a participant (teacher).

Describe the procedure the victim followed to give feedback to the participant during the learning task.

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..... [4]

- 6 Describe the psychology being investigated in the study by Pepperberg that used Alex the parrot as a participant.

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7 From the study by Yamamoto et al. (chimpanzee helping):

(a) Outline **one** aim of this study.

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..... [2]

(b) Outline **one** methodological weakness of this study.

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..... [2]

(c) Suggest **one** real-world application based on the procedure of this study.

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..... [2]

8 (a) Outline what is meant by the nature–nurture debate, using any examples.
Do **not** refer to the study by Schachter and Singer (two factors in emotion) in your answer.

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..... [4]

- (b) Explain how **one** result from the study by Schachter and Singer (two factors in emotion) supports the nature side of the nature–nurture debate and how **one** result supports the nurture side of the nature–nurture debate.

Result that supports the nature side of the debate:

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Explain how:

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Result that supports the nurture side of the debate:

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Explain how:

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..... [8]

- 9 Evaluate the study by Laney et al. (false memory) in terms of **two** strengths and **two** weaknesses. At least one of your evaluation points **must** be about independent measures.

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