



Oxford Cambridge and RSA

Friday 26 May 2023 – Afternoon

GCSE (9–1) Psychology

J203/02 Studies and applications in psychology 2

Time allowed: 1 hour 30 minutes



You must have:

- a scientific or graphical calculator



Please write clearly in black ink. **Do not write in the barcodes.**

Centre number

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Candidate number

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First name(s)

Last name

INSTRUCTIONS

- Use black ink. You can use an HB pencil, but only for graphs and diagrams.
- Write your answer to each question in the space provided. If you need extra space use the lined pages at the end of this booklet. The question numbers must be clearly shown.
- Answer **all** the questions.

INFORMATION

- The total mark for this paper is **90**.
- The marks for each question are shown in brackets [].
- Quality of extended response will be assessed in questions marked with an asterisk (*).
- This document has **20** pages.

ADVICE

- Read each question carefully before you start your answer.

2

Section A

Sleep and Dreaming

1 (a) Identify which of the following is an exogenous zeitgeber.

- A Light
- B Melatonin
- C Pineal gland
- D Suprachiasmatic nucleus (SCN)

Your answer

[1]

(b) Identify the number of stages in a complete sleep cycle.

- A 3
- B 4
- C 5
- D 6

Your answer

[1]

(c) Identify which of the following statements is correct.

- A Melatonin levels are high at night and low in the morning
- B Melatonin levels are high in the morning and low at night
- C Melatonin levels go up and down during the night
- D Melatonin levels remain the same all day and all night

Your answer

[1]

3

2 Explain what REM sleep is.

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..... [2]

3 Charlie and Alex share a bedroom. Charlie is having trouble getting to sleep. Charlie's mother has been researching ways in which their bedroom could be changed to help Charlie get to sleep.

(a) State the type of insomnia Charlie is experiencing.

..... [1]

(b) State **one** cause, apart from stress or anxiety, of the type of insomnia Charlie is experiencing.

..... [1]

(c) Suggest **two** changes Charlie could make to the bedroom to improve sleep hygiene.

1

2 [2]

Charlie believes stress is making it difficult to get to sleep.

(d) Explain the role of the nervous system in insomnia **and** how Charlie could manage it through relaxation.

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4

4 (a) Outline **four** features of the procedure used in Williams et al.'s (1992) study into bizarreness in dreams and fantasies.

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[4]

(b) Outline **one** conclusion from Williams et al.'s (1992) study.

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[2]

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5 A psychologist wants to replicate Williams et al.'s (1992) study. They decide to interview their participants asking them questions to investigate the content of their dreams. They choose to use an unstructured interview.

(a) State **one** open question the psychologist could use in the interviews.

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..... [1]

(b) Explain how using an unstructured interview will affect the construct validity of the investigation.

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..... [3]

6 Evaluate the Activation Synthesis Theory of Dreaming by matching the terms to the correct definitions.

Draw **one** line from each definition to the correct evaluative term.

Definition

Evaluative term

Dreams are highly complex so reducing them down to simple neuronal processes is too simplistic

Determinism

Reductionism

There is evidence that dreams occur in more than one of the stages of the sleep cycle

Validity

[2]

6

Section B

Memory

- 7 (a) 30 out of 46 participants in the Experimental Group in Braun et al.'s (2002) study mentioned memories of Disney World. Identify the percentage of the Experimental Group these 30 participants represented.

A 53%

B 56%

C 65%

D 67%

Your answer

[1]

- (b) Identify the independent variable in Braun et al.'s (2002) study.

A Whether participants completed two distraction tasks

B Whether participants had a difference in scores between week one and week two

C Whether participants met and shook hands with a favourite TV character

D Whether participants were shown a Disney advert or a control advert

Your answer

[1]

- (c) Identify which of the following statements is true in Braun et al.'s (2002) study.

A The study was age biased

B The study was ecologically valid

C The study was ethical

D The study was holistic

Your answer

[1]

8 A company hires a psychologist to write a survey to see how satisfied its customers are with its service. The psychologist includes a variety of questions in the survey such as:

- a) How much did you like our service, was it excellent or good?
- b) Would you use our service again, yes or no?
- c) How do you feel about the service you received?

Using the source:

(a) Identify the leading question.

..... [1]

(b) Explain how leading questions could lead to memory distortion of how satisfied customers are with the company's service.

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..... [2]

(c) Identify the question which collects qualitative data.

..... [1]

(d) The psychologist decides to use a rating scale to measure how satisfied customers are overall with the company's service.

Give an example of a suitable question using a rating scale the psychologist could use.

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..... [2]

9 Wilson, Kopelman and Kapur’s (2008) study of prominent and persistent loss of past awareness in amnesia found that Clive Wearing suffered from both retrograde and anterograde amnesia.

(a) Match the finding from Wilson, Kopelman and Kapur’s (2008) study with the correct type of amnesia.

Draw **one** line from each type of amnesia to its correct finding.

Type of amnesia	Finding
Anterograde amnesia	Clive Wearing was unable to recall facts and autobiographical information from before his accident
Retrograde amnesia	Clive Wearing had severe brain abnormalities
	Clive Wearing always scored zero on tests of delayed recall meaning he could not form new semantic memories

[2]

(b) Wilson, Kopelman and Kapur (2008) used a case study.

Explain **one** strength of Wilson, Kopelman and Kapur (2008) using a case study.

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..... [2]

10 A psychologist investigated how decay can affect our ability to remember. Two groups of participants were read a list of 10 words at the same time. Group One recalled the word list immediately, whereas Group Two were asked to count backwards from 10 to 1 before recalling the word list (delayed recall).

The table below shows the total percentage of words recalled in both conditions. The psychologist concluded decay does affect our ability to remember.

Condition	Total percentage of words recalled
Immediate recall	74%
Delayed recall	59%

(a) State what is meant by decay.

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..... [1]

(b) Outline **one** other type of forgetting that may explain the results of this study.

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..... [2]

(c) Explain how using cues could have improved the participants' recall of the words in this study.

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..... [2]

(d) Explain how the psychologist could have calculated the median number of words recalled in each condition.

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..... [2]

(e) Explain whether the psychologist used an independent measures or repeated measures experimental design in this study.

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..... [2]

10

11 Outline how the Wechsler Memory Scale is used to measure memory functions.

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..... [2]

Section C

Social Influence

12 (a) Identify which part of the brain is associated with having low self-esteem.

- A Cerebellum
- B Hippocampus
- C Hypothalamus
- D Prefrontal cortex

Your answer

[1]

(b) Identify which part of the brain is associated with having faulty moral reasoning.

- A Cerebellum
- B Hippocampus
- C Hypothalamus
- D Prefrontal cortex

Your answer

[1]

(c) Identify which of the following best describes the authoritarian personality.

- A Less likely to obey those in authority and discriminate against those who they see as inferior
- B Less likely to obey those in authority and discriminate against those who they see as superior
- C More likely to obey those in authority and discriminate against those who they see as inferior
- D More likely to obey those in authority and discriminate against those who they see as superior

Your answer

[1]

13 Sam is entering a competition run by the local council. The council are asking entrants to design a poster to encourage people to place litter in bins. Sam has just learnt about Bickman’s (1974) study on the social power of a uniform and wants to use the findings of this study when designing a poster.

Using the source:

(a) Explain how Bickman’s findings could help Sam when designing the poster.

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..... [3]

(b) Explain **one** problem Sam may have using Bickman’s (1974) study to design the poster.

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..... [2]

13

14 Complete the following passage to explain how locus of control can affect crowd behaviour.

You must choose a **different** term for each gap from the list below.

external **highly** **internal** **less**

People who have an internal locus of control believe that they have the ability to

control their decisions about their own life. In crowd situations, people with an

..... locus of control are

likely to be influenced by how the crowd is behaving. People with an

..... locus of control are more likely to use violence when

taking part in a protest.

[3]

15* Use your knowledge and understanding from across the psychology course to explain how far you agree with the following statement:

‘Research is only useful when we can generalise the findings to wider society.’

In your answer, refer to the NatCen (2011) study into the August riots and at least **one** other study from a different area of psychology you have studied.

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Section D

Research Methods

A psychologist wanted to investigate whether working from home made employees more productive than working in an office. All participants worked for the same company. 10 participants were asked to complete a set of tasks at home, and 10 participants were asked to complete a different set of tasks in their office at their place of work. Participants were given a maximum of 8 hours to complete their tasks and were asked to record how long it took them.

The results of the experiment are shown in the table below.

Table to show the amount of time (in hours) each participant took to complete their tasks (maximum time allowed: 8 hours)			
Participant number	Working from home	Participant number	Working in the office
1	6.5	11	4.25
2	6.75	12	5.5
3	5	13	4
4	5.25	14	5.25
5	7.5	15	4
6	6.75	16	4.5
7	7	17	3.75
8	7.5	18	4.75
9	6	19	4.5
10	6.25	20	4.5

16 State an alternative hypothesis for this investigation.

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..... [2]

17 The psychologist used an opportunity sample of participants for this study.

Explain why they did **not** use a random sample instead.

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..... [2]

18 Identify the type of experiment used in this study.

Tick **one** box to show your answer.

Field Laboratory [1]

19 Explain why the psychologist used an independent measures design in this study.

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..... [2]

20 Participant **Number 9** took 6 hours to complete their tasks.

(a) Calculate the time taken by participant **Number 9** as a fraction of the maximum number of hours allowed to complete their tasks.
Express your answer in its simplest form.
Show your workings.

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..... [2]

18

- (b) Calculate the range of time taken for the participants who worked at home. Show your workings. The table of results is repeated below.

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..... [2]

Table to show the amount of time (in hours) each participant took to complete their tasks (maximum time allowed: 8 hours)			
Participant number	Working from home	Participant number	Working in the office
1	6.5	11	4.25
2	6.75	12	5.5
3	5	13	4
4	5.25	14	5.25
5	7.5	15	4
6	6.75	16	4.5
7	7	17	3.75
8	7.5	18	4.75
9	6	19	4.5
10	6.25	20	4.5

- 21 Explain how experimenter bias may affect the validity of the findings in this study.

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22 Research studies can often be affected by extraneous variables.

Explain how the psychologist could use standardisation to reduce the impact of extraneous variables in this study.

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..... [3]

23 Draw a normal distribution curve on the axes below.



[1]

END OF QUESTION PAPER

ADDITIONAL ANSWER SPACE

If additional space is required, you should use the following lined page(s). The question number(s) must be clearly shown in the margin(s).

A large rectangular area with a vertical solid line on the left side and horizontal dotted lines across the rest of the page, providing space for writing answers.



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