



Oxford Cambridge and RSA

# Friday 06 November 2020 – Afternoon

## GCSE (9–1) in 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.
- Answer **all** the questions.
- 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.

### 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

## Memory

Answer **all** questions in this section.

- 1 (a) Identify the research method used in Wilson, Kopelman & Kapur's (2008) study into prominent and persistent loss of past awareness in amnesia.

- A case study
- B natural experiment
- C observation
- D self-report

Your answer

☐

[1]

- (b) Identify the type of brain scans used in Wilson, Kopelman & Kapur's (2008) study.

- A CT
- B EEG
- C MRI
- D PET

Your answer

☐

[1]

- (c) Identify which of the following is a criticism of Wilson, Kopelman & Kapur's (2008) study.

- A low application
- B low construct validity
- C low ecological validity
- D low generalisability

Your answer

☐

[1]

## 3

- 2 Yasmin and David are revising together. Yasmin has tried revising before but cannot seem to remember the information. David has studied the Multi-store Model of Memory and uses this to make some suggestions to help Yasmin, including:

- that she is trying to put too much information into her memory;
- that she should try repeating the information she is trying to learn;
- that she should try thinking about the meanings of the information.

Using the source:

- (a) Identify the suggestion that refers to capacity of short-term memory.

..... [1]

- (b) Suggest **one** way in which Yasmin could increase the capacity of her short-term memory.

..... [1]

- (c) Using the Multi-store Model of Memory;

Describe how information will transfer from Yasmin's short-term to long-term memory.

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

- 3 Evaluate the Multi-store Model of Memory.

.....  
 .....  
 .....  
 .....  
 .....  
 .....  
 .....  
 .....  
 ..... [4]

4

- 4 Amnesia is a condition which affects a person's memory.

Draw a line to match each type of amnesia to its correct definition.

[2]

**Type of amnesia****Definition**

Anterograde amnesia

Difficulty in remembering how to do things

Retrograde amnesia

Difficulty in recalling memories from the past

Difficulty in forming new memories

- 5 Complete the following passage about the role of neuropsychology in amnesia.

You must choose a different part of the brain for each gap from the list below.

[3]

**cerebellum****frontal lobe****hypothalamus****hippocampus**

The part of the brain associated with anterograde amnesia is the .....

This is because information from the short-term memory needs to pass through here to reach the long-term memory. Damage to the ..... is associated with retrograde amnesia. Procedural memories, like knowing how to drive a car or play a musical instrument, can be affected by damage to the .....

5

- 6 A psychologist investigated reconstructive memory. He gave a group of participants some text to read and then asked them to recall what they could remember. He then calculated the number of errors shaped by experience and expectations.

**Table showing the number of errors made by ten participants.**

Errors shaped by prior experiences	12
Errors shaped by expectations	30

Using the source:

- (a) Suggest **one** way in which memories can be reconstructed, other than by prior experience or expectation.

..... [1]

- (b) Calculate the fraction of errors shaped by prior experiences to errors shaped by expectations, simplified to its lowest form.  
Show your workings.

.....  
 .....  
 .....  
 ..... [3]

- 7 Describe **one** criticism of the Theory of Reconstructive Memory.

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

- 8 Describe **one** way in which the development of neuropsychology has contributed to measuring different memory functions.

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

6

## Section B

## Sleep and Dreaming

Answer **all** questions in this section.

- 9 (a) Identify which of the following represents the actual subject matter of dreams according to the Freudian Theory of Dreaming.

- A latent content
- B manifest content
- C repression
- D wish fulfilment

Your answer

☐

[1]

- (b) Identify what the process of repression means in relation to the Freudian Theory of Dreaming.

- A pushing pleasant thoughts and experiences in to the conscious
- B pushing pleasant thoughts and experiences in to the unconscious
- C pushing unpleasant thoughts and experiences in to the conscious
- D pushing unpleasant thoughts and experiences in to the unconscious

Your answer

☐

[1]

- (c) Identify which of the following is a criticism relating to the validity of the Freudian Theory of Dreaming.

- A it ignores determinism
- B it is overly scientific
- C it is subjective
- D it is too reductionist

Your answer

☐

[1]

- 10 Adeline has difficulty sleeping, so she stays awake playing computer games until late at night to try and tire herself out. But instead she just finds it harder to get to sleep. Adeline shares a room with her sister who sometimes snores, this often wakes her during the night. Adeline kept a diary for a week noting how long she played computer games until she settled to sleep.

**Table showing how long Adeline played computer games before she settled to sleep.**

Day	Length of time (in minutes) before sleeping
Sunday	96
Monday	121
Tuesday	87
Wednesday	42
Thursday	12
Friday	38
Saturday	60

Using the source:

- (a) Identify **one** cause of Adeline's sleep onset insomnia.

..... [1]

- (b) Identify **one** cause of Adeline's sleep maintenance insomnia.

..... [1]

- (c) Identify the day which Adeline took the longest to settle to sleep.

..... [1]

- (d) Calculate, as a percentage of the week, the length of time Adeline took before she settled to sleep on Sunday. Express your answer to two decimal places.  
Show your workings.

.....  
 .....  
 .....  
 ..... [3]

- (e) Explain **one** benefit of sleep to Adeline.

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

8

- (f) Adeline designs a questionnaire to investigate what techniques people use to improve their sleep hygiene. She decides to use open questions.

Give **one** open question that Adeline could include in her questionnaire.

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

- 11 Outline the role of melatonin in sleep.

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

- 12 Outline the role of neuropsychology in the Activation Synthesis Theory of Dreaming.

.....  
.....  
.....  
.....  
.....  
..... [3]



[6]

10

## Section C

## Social Influence

Answer **all** questions in this section.

- 14 (a) Identify where Bickman's (1974) first experiment in the study into obedience and the social power of a uniform took place.

- A Chicago
- B Houston
- C New Orleans
- D New York

Your answer

☐

[1]

- (b) Identify the sampling method Bickman (1974) used in his first experiment.

- A opportunity
- B random
- C stratified
- D volunteer

Your answer

☐

[1]

- (c) Identify the correct uniforms worn by the experimenters in Bickman's (1974) first experiment.

- A civilian, milkman, policeman
- B civilian, bus driver, guard
- C civilian, milkman, guard
- D civilian, bus driver, policeman

Your answer

☐

[1]

- 15 Describe **one** way culture may influence pro-social behaviour.

.....

.....

.....

..... [2]

- 16 Amelia, Henry and Oliver are all playing a game. Amelia and Henry have both played the game before, but Oliver has not. Amelia explains the rules to both Henry and Oliver. As Oliver has never played the game before, he accepts Amelia's rules. Henry is positive Amelia's rules are incorrect but she tells him to go along with them so the game can start. Henry wins the game.

Using the source:

- (a) Identify the child who is showing conformity.

..... [1]

- (b) Identify the child who is showing obedience.

..... [1]

- 17 Explain how conformity and crowd behaviour are different.

.....

.....

.....

..... [2]

- 18 Mohammed and Jordana want to raise awareness of mental health at their youth club. They are unsure how to achieve this. The manager of the youth club says 'even a minority can influence attitudes towards mental health stigma and discrimination'.

Explain **one** way in which minority influence could be used to help reduce mental health stigma and discrimination. You must refer to the source in your answer.

.....

.....

.....

..... [2]

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

“Quantitative data is more useful than qualitative data.”

In your answer, you should refer to Bickman's (1974) study into obedience and the social power of a uniform **and at least one** other study from a different area of psychology you have studied. [13]

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## Section D

## Research Methods

Answer **all** questions in this section.

A psychologist investigated whether wearing protective headgear influenced risk taking behaviour.

He gathered a sample of 30 participants from his workplace using self-selected sampling. He divided them into three groups of ten; group one was given a baseball cap to wear, group two was given a protective cycle helmet to wear and group three did not wear any headgear. All three groups were asked to play a risk-taking computer game. Each participant played the game 10 times and the total percentage of risk-taking behaviour was calculated. A greater percentage indicated more risk-taking behaviour.

The results are shown in the table below.

**Table to show the percentage of risk-taking behaviour by group**

Group (headgear type)	Percentage of risk-taking behaviour
Protective cycle helmet	17%
Baseball cap	13%
No headgear	12%

**20** Identify which of the following is a suitable alternative hypothesis for this study.

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

There will be no difference in the risk-taking behaviour between participants wearing a baseball cap, protective cycle helmet or no headgear.

☐

There will be a significant relationship between the risk-taking behaviour and wearing a protective cycle helmet, a baseball cap or no headgear.

☐

There will be a significant difference in the risk-taking behaviour of participants wearing a protective cycle helmet and those wearing a baseball cap or no headgear.

☐

**[1]**

21 The psychologist gathered the 30 participants using self-selected sampling.

(a) Outline how the psychologist could have used self-selected sampling in this study.

.....

.....

.....

..... [2]

(b) Outline **one** strength of using self-selected sampling in this study.

.....

.....

.....

..... [2]

22 Explain **one** way in which the findings in the source may lack validity.

.....

.....

.....

..... [2]

23 Experiments are often internally reliable.

Explain how the psychologist could achieve internal reliability in this study.

.....

.....

.....

..... [2]

- 24 The psychologist in the source collected primary data.

Explain **one** strength of collecting primary data in this study.

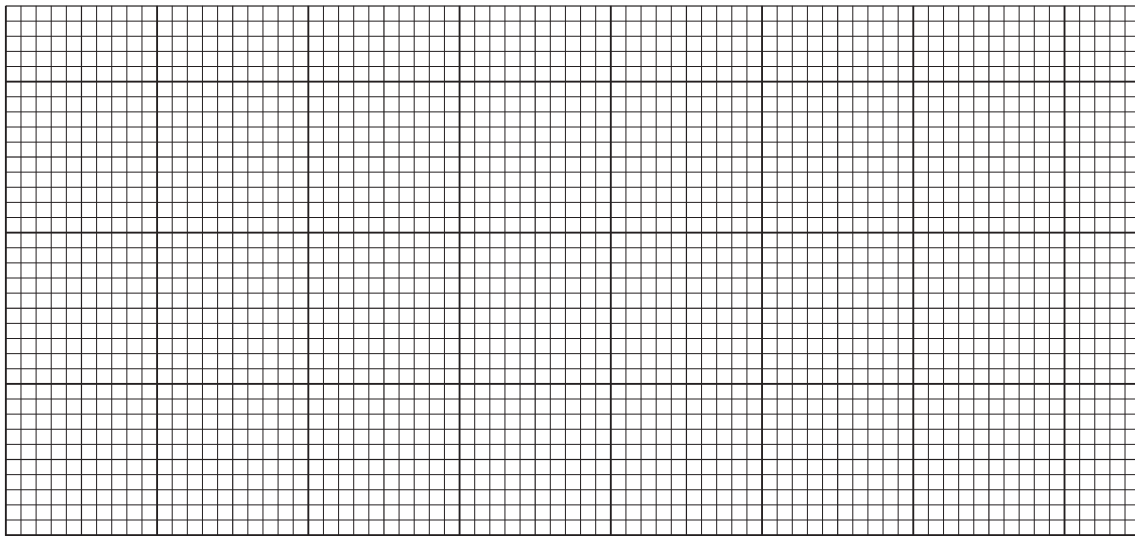
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.....

.....

..... [2]

- 25 Draw an appropriate graph to display the data from the table on page 14.



[3]



26 Using the source:

Explain **two** conclusions from the results of this study.

1. ....  
.....  
.....  
..... [2]

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

**END OF QUESTION PAPER**



[illegible]

This image shows a blank sheet of white paper designed for writing. It features a series of evenly spaced horizontal blue lines across its entire width. A single vertical blue line runs down the left side, creating a narrow margin. The paper is otherwise completely empty, with no text or markings.

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