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I declare this is my own work.

# GCSE PSYCHOLOGY

## Paper 1 Cognition and Behaviour

Friday 19 May 2023      Afternoon      Time allowed: 1 hour 45 minutes

**Materials**

For this paper you may use:

- a calculator.

**Instructions**

- Use black ink or black ball-point pen.
- Fill in the boxes at the top of this page.
- Answer **all** questions.
- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- If you need extra space for your answer(s), use the lined pages at the end of this book. Write the question number against your answer(s).
- Do all rough work in this book. Cross through any work you do not want to be marked.

**Information**

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 100.
- Question 18 is a synoptic question in which you will be rewarded for your ability to draw together different areas of knowledge and understanding from across the full course of study.
- Questions should be answered in continuous prose. You will be assessed on your ability to:
  - use good English
  - organise information clearly
  - use specialist vocabulary where appropriate.

| For Examiner's Use |      |
|--------------------|------|
| Section            | Mark |
| A                  |      |
| B                  |      |
| C                  |      |
| D                  |      |
| <b>TOTAL</b>       |      |



Section A

Memory

Answer **all** questions in the spaces provided.

Only **one** answer per question is allowed, except where stated otherwise.

For each question completely fill in the circle alongside the appropriate answer.

CORRECT METHOD



WRONG METHODS



If you want to change your answer you must cross out your original answer as shown.



If you wish to return to an answer previously crossed out, ring the answer you now wish to select as shown.



0 1

Which of the following describes semantic memory?

Shade **one** box.

[1 mark]

**A** It contains events that have occurred in our lives

☐

**B** It helps us carry out physical actions

☐

**C** It retains information for approximately 30 seconds

☐

**D** It stores facts about general knowledge and meanings

☐

0 2

Which of the following is the correct definition of a 'false memory'?

Shade **one** box.

[1 mark]

**A** A feeling that we have experienced something similar before

☐

**B** A memory for something that didn't happen but feels true

☐

**C** Not being able to remember the correct answer to a question

☐

**D** The confusion between two similar memories

☐

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0 3

What is meant by ‘encoding’ as a process of memory?

[2 marks]

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Turn over for the next question

Turn over ►





0 4 . 2

The researcher considered different experimental designs when planning her experiment.

Identify **and** explain **one** strength and **one** weakness of an independent groups design.

Write your answers in the correct spaces provided.

[4 marks]

Strength \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Weakness \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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Turn over for the next question

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0 5

Evaluate the multi-store model of memory.

[4 marks]

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0 6

Describe the method used by Bartlett in his 'War of the Ghosts' study.

[3 marks]

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0 7

Read the following information.

Dan and his Uncle Bill are chatting about the day Dan was born.

Dan: "Uncle Bill, what day of the week was I born on?"

Uncle Bill: "I think you were born on a Tuesday. Or maybe it was your older sister who was born on a Tuesday. I get mixed up."

Use your knowledge of interference to explain why Uncle Bill cannot accurately remember what day of the week Dan was born on.

[4 marks]

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25

Turn over for Section B

Turn over ►



Section B

Perception

Answer **all** questions in the spaces provided.

0 8

‘Fiction’ is one explanation for why people see visual illusions.

Which of the following visual illusions is an example of fiction?

Shade **one** box.

[1 mark]

- A The Ames room ☐
- B The Kanizsa triangle ☐
- C The Müller-Lyer ☐
- D The Necker cube ☐

0 9

Kishan is studying Food Preparation and Nutrition at school. During one of his lessons, he is asked to close his eyes and taste different foods. He then has to guess what the foods are. He thinks that one of them is very familiar and correctly recognises it as strawberry yoghurt.

State whether Kishan is experiencing sensation **or** perception when he correctly recognises the strawberry yoghurt.

Explain your answer.

[2 marks]

Sensation **or** perception \_\_\_\_\_

Explanation \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



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Read the following article.

In a study investigating perceptual set, 40 participants were asked to place their hand in a bucket of water for 10 seconds whilst listening to music. The temperature of the water was the same for each participant.

They were asked to give a number between 1 and 50 to report how warm they thought the water was.

A score of 1 meant the water felt extremely cold. A score of 50 meant that the water felt extremely hot.

There were two conditions of the experiment. All participants completed both conditions.

In **Condition A**, participants listened to a famous song that is associated with winter and Christmas.

In **Condition B**, participants listened to a famous song that is associated with summer and the sunshine.

**Question 10 continues on the next page**

**Turn over ►**



**Table 1** shows the frequency of reported temperature scores for **Condition A**.  
One of the scores is missing.

**Table 1**

| Reported temperature score | Frequency |
|----------------------------|-----------|
| 1–5                        | 6         |
| 6–10                       |           |
| 11–15                      | 16        |
| 16–20                      | 1         |
| 21–25                      | 2         |
| 26–30                      | 0         |
| 31–35                      | 2         |
| 36–40                      | 1         |
| 41–45                      | 0         |
| 46–50                      | 1         |

1 0 . 1

Name the type of data that is shown in **Table 1**.

[1 mark]

\_\_\_\_\_

1 0 . 2

Calculate the number of participants who reported a temperature score between 6 and 10.

Show your workings.

[2 marks]

Workings:

Number of participants \_\_\_\_\_



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10.3

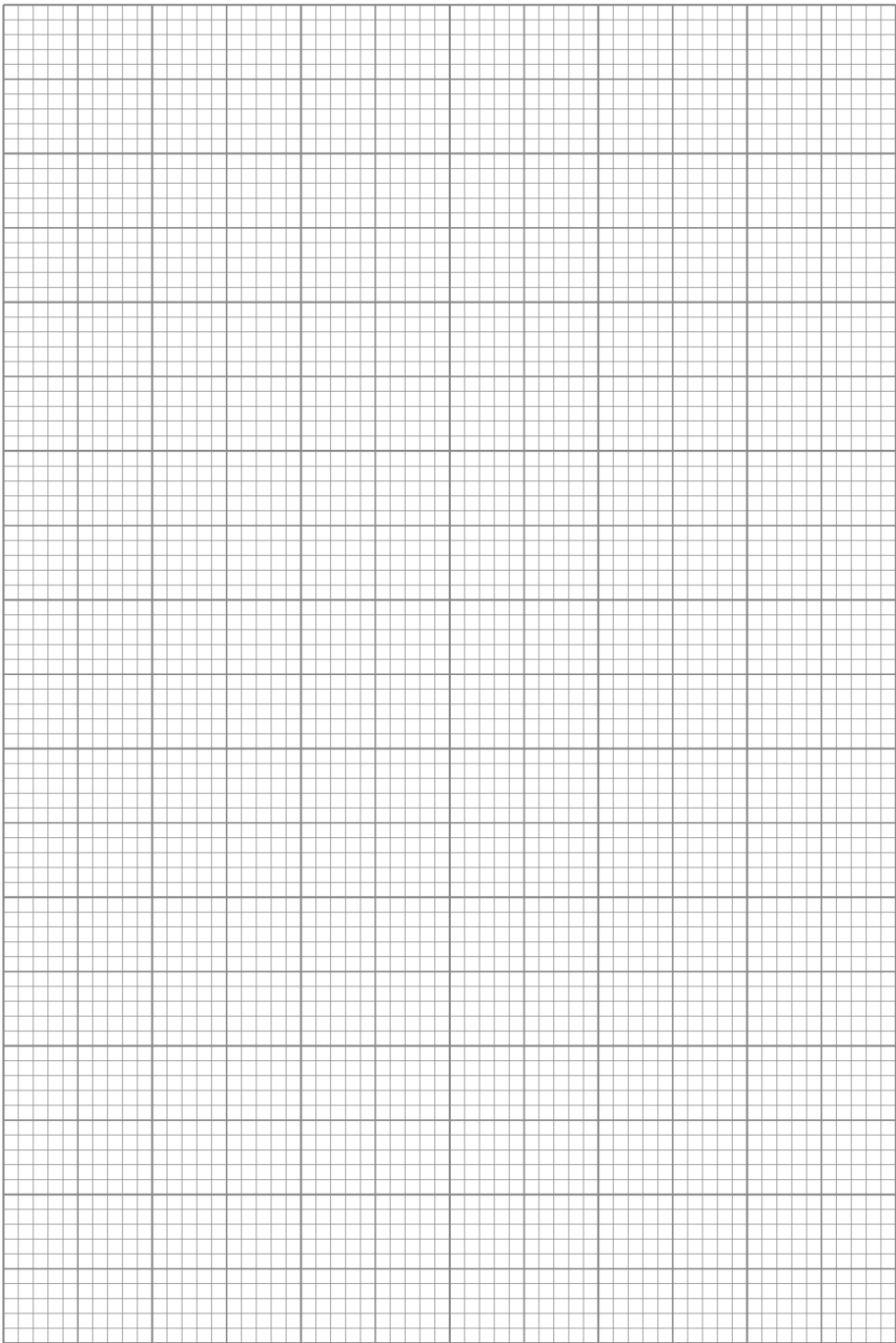
Sketch a histogram to show the results in **Table 1**.

Include the number of participants you wrote in answer to Question **10.2**.

Provide a suitable title and labels for your histogram.

[4 marks]

Title \_\_\_\_\_  
\_\_\_\_\_



Turn over ►



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1 0 . 4

The researcher found that participants in **Condition B** reported the water felt warmer than participants in **Condition A**.

Using your knowledge of ‘perceptual set’, outline **one** conclusion that the researcher could make from these findings.

[2 marks]

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Bruner and Minturn investigated the effect of expectation on perception.

Describe Bruner and Minturn’s study.

**[4 marks]**

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**Turn over for the next question**

**Turn over ►**







**Section C****Development**

Answer **all** questions in the spaces provided.

**1 3**

Which of the following is a small structure at the base of the brain that coordinates movement and balance?

Shade **one** box.

**[1 mark]**

**A** Brain stem ☐

**B** Cerebellum ☐

**C** Cortex ☐

**D** Thalamus ☐

**1 4**

Which of the following is a true statement about people who have a growth mindset?

Shade **one** box.

**[1 mark]**

**A** They avoid challenges ☐

**B** They believe ability will improve with practice ☐

**C** They feel threatened by the success of others ☐

**D** They ignore negative criticism that is useful ☐



1 5

Read the following information.

You have been asked to design an experiment to investigate whether having a fixed mindset or a growth mindset will affect students' performance in their end of year exams.

1 5 . 1

Identify what the independent variable and dependent variable would be in your experiment.

Write your answers in the correct spaces provided.

[2 marks]

Independent variable \_\_\_\_\_  
\_\_\_\_\_

Dependent variable \_\_\_\_\_  
\_\_\_\_\_

1 5 . 2

The target population for your experiment is Year 8 students at a local school.

There are 100 Year 8 students at this school.

Describe how you could select 20 participants for your experiment using random sampling.

[3 marks]

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| 1 | 6 |
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Piaget’s stage theory describes cognitive development.

Briefly outline the sensorimotor stage **and** the formal operational stage.

**[4 marks]**

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Section D

Research Methods

Answer **all** questions in the spaces provided.

1 9

Read the following information.

At a school sports day, students were asked to run 100 metres on the running track as quickly as they could before and after drinking 150 ml of an energy drink. The researcher recorded the times taken to run 100 metres for each student.

1 9 . 1

Identify the type of experiment used in this study.

Shade **one** box only.

[1 mark]

- A Field ☐
- B Independent groups ☐
- C Laboratory ☐
- D Matched pairs ☐
- E Repeated measures ☐

1 9 . 2

Identify the experimental design used in this study.

Shade **one** box only.

[1 mark]

- A Field ☐
- B Independent groups ☐
- C Laboratory ☐
- D Matched pairs ☐
- E Repeated measures ☐



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Explain **one** difference between primary and secondary data.

**[3 marks]**

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**Turn over for the next question**

**Turn over ►**



2 1

Read the following information.

In a sixth form centre, students have independent study lessons as well as subject lessons.

Students use the sixth form learning area during their independent study lessons. They are expected to use their study lessons to finish work related to their subjects.

Teachers are concerned that some students spend more time chatting to friends than finishing work during study lessons. A researcher is asked to investigate how students are using study lessons.

The researcher asked 30 students to fill in a questionnaire about how they spend their study lessons. They selected participants using stratified sampling.

2 1 . 1

Explain **one** weakness of using a stratified sample when conducting research.

[2 marks]

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2 1 . 2

The responses of participants to Question 1 of the questionnaire are shown in **Table 2**.

**Table 2** Responses of participants to Question 1:  
‘Do you think your progress in lessons is positively affected by the amount of time you spend doing independent study?’

| YES | NO |
|-----|----|
| 19  | 11 |

Calculate the percentage of participants who responded YES.

State your answer using **two** significant figures and show your workings.

**[3 marks]**

Workings:

\_\_\_\_\_ %

**Question 21 continues on the next page**

**Turn over ►**



2 1 . 3

Participants were also asked to estimate the amount of time they spent working and chatting to friends during a typical 70 minute study lesson.

The mean estimates for 30 participants are shown in **Table 3**.

**Table 3** Mean estimated amount of time spent working and chatting to friends during a typical 70 minute study lesson for 30 participants.

| Activity                                                                       | Mean estimated time<br>(in minutes) |
|--------------------------------------------------------------------------------|-------------------------------------|
| Time spent <b>working</b> during a typical 70 minute study lesson.             | 60                                  |
| Time spent <b>chatting to friends</b> during a typical 70 minute study lesson. | 10                                  |

What is the ratio of time spent **working** compared to time spent **chatting to friends**?

Write this ratio in its simplest form.

[2 marks]

Answer



2 1 . 4

Read the following information.

The researcher wanted to find out more about the **types of learning activity** happening during study lessons. They decided to observe the actual behaviour of the same participants during study lessons. They worked with an assistant using CCTV camera recordings of the sixth form learning area during study lessons. They used recordings taken over the past two days.

Identify **two** ethical issues that researchers should consider in observation studies. **[2 marks]**

Ethical issue 1 \_\_\_\_\_

Ethical issue 2 \_\_\_\_\_

**Question 21 continues on the next page**

**Turn over ►**



2 1 . 5

Sketch a **frequency table** the researcher and their assistant can use to collect information about the types of learning activity participants do during study lessons.

Include **two** categories of behaviour about **types of learning activity** in your frequency table.

**Do not** include ‘chatting to friends’ and ‘completing work’ as categories of behaviour.

**[4 marks]**

2 1 . 6

The psychologist and their assistant had high interobserver reliability in their observation study.

Define what is meant by ‘interobserver reliability’ in observational research.

**[2 marks]**





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