GCSE PSYCHOLOGY
Paper 1 Cognition and behaviour

Additional specimen Morning 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 the 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.
- Do all rough work in this book. Cross through any work that you do not want to be marked.

Information
- The marks for questions are shown in brackets.
- The maximum mark for this paper is 100.
- Questions should be answered in continuous prose. You will be assessed on your ability to:
  - use good English
  - organise information clearly
  - use specialise vocabulary where appropriate.
Section A

Memory

Answer all questions in the spaces provided.

Only one answer per question is allowed.

For each answer 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 one of these describes how information is usually encoded in short term memory? Shade one box only. [1 mark]

A  Acoustically

B  Kinesthetically

C  Semantically

D  Visually

0 2 Which one of these describes the process of holding information in your memory? Shade one box only. [1 mark]

A  Encoding

B  Rehearsal

C  Retrieval

D  Storage
What is a false memory? [1 mark]

Antoni’s mum phones him and tells him she has lots of jobs for him to do as soon as he gets home from school. She then lists all the jobs. Immediately after her phone call, Antoni remembers the first and last jobs from the list but he can’t remember the middle ones.

Explain why this occurred. In your answer, refer to the jobs at the start, middle and end of the list. [6 marks]
Describe the theory of reconstructive memory. [4 marks]

Seema is moving house. She is filling in an application form for a course and is struggling to accurately remember her new address.

Identify and explain two factors that might have affected the accuracy of Seema's memory. [4 marks]

Benefit 1

Benefit 2
Research into memory often uses laboratory experiments.

Describe **one** advantage and **one** disadvantage of using laboratory experiments to investigate factors affecting memory.

[4 marks]

Outline the multi-store model of memory.

[4 marks]
Figure 1 shows a visual illusion.

Most people say that they see a white square in the centre of Figure 1.

Outline what psychologists mean by ‘fiction’ when explaining this type of visual illusion.

[2 marks]
0 9 . 2 Explain the difference between sensation and perception. [2 marks]

0 9 . 3 Which visual illusion is also an example of ‘fiction’? Shade one box. [1 mark]

A  The Kanizsa triangle
B  The Muller-Lyer
C  The Necker cube
D  The Ponzo

Turn over for the next question
In an online survey, 500,000 people were asked to state the first thing they saw when they were shown Figure 2.

The results are shown in Table 1.

Table 1: The results of the online survey

<table>
<thead>
<tr>
<th>Number of participants who identified two faces</th>
<th>Number of participants who identified a vase</th>
</tr>
</thead>
<tbody>
<tr>
<td>210,079</td>
<td>289,921</td>
</tr>
</tbody>
</table>

Express the result for the number of participants who identified a vase to two significant figures. [1 mark]

The researchers decided to leave the survey online until another 100,000 participants have answered the question.

Based on the results in Table 1, what is the best estimate of how many of these extra participants will identify two faces. Shade one box. [1 mark]

A 13,000
B 42,000
C 68,000
D 75,000
Using depth cues – Nature or nurture?

A researcher was studying tribes who spend their whole lives surrounded by trees. Because of this, they have never seen anything far away. When the tribe’s people were taken to a desert plain, they thought that the animals they could see in the distance were actually insects.

Outline Gibson’s direct theory of perception. Compare Gibson’s direct theory of perception with Gregory’s constructivist theory of perception. Refer to the article in your answer.

[9 marks]
1. Outline Bruner and Minturn’s study of perceptual set. [3 marks]

2. Evaluate Bruner and Minturn’s study of perceptual set. [4 marks]

3. Identify one extraneous variable that Bruner and Minturn may have needed to control for in their study.

   Explain how they could have controlled the extraneous variable that you have identified. [2 marks]
Section C
Development

Answer all questions in the spaces provided.

13. 1 Read the following statements about Piaget’s Theory of Cognitive Development.

Which statement is **true**? Shade **one** box.  

[A] One of Piaget’s stages of cognitive development is known as post-operational.

[B] Piaget believed that there are five stages to children’s cognitive development.

[C] Piaget’s theory has been criticised because it’s based on research that used small, unrepresentative samples.

[D] Research supports Piaget’s findings that the ability to carry out cognitive tasks is fixed at ages he suggested.

13. 2 Read the following statements about Willingham’s Learning Theory.

Which statement is **false**? Shade **one** box.  

[A] It criticises learning styles theories as unsupported.

[B] Praising effort should be expected.

[C] The theory uses scientific evidence.
A teacher carried out a study to see if her class of 6 and 7 year olds were able to conserve liquid.

This is how the teacher carried out the study:

- In Step a, the children are shown two glass containers that are the same shape and have the same amount of liquid in them. They are asked if the amount of liquid is the same or different.
- In Step b, the liquid from one of the original containers is poured into another container of a different shape.
- In Step c, the children are asked again if the amount of liquid is the same or different.

Figure 3 shows Steps a, b, and c.

The results of the teacher’s study are shown in Table 2.

Table 2: The ages of the children and their answers after Step c.

<table>
<thead>
<tr>
<th>Children’s age</th>
<th>Answer given in Step c</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 years and 9 months</td>
<td>different</td>
</tr>
<tr>
<td>6 years and 10 months</td>
<td>different</td>
</tr>
<tr>
<td>6 years and 11 months</td>
<td>same</td>
</tr>
<tr>
<td>7 years and 1 month</td>
<td>same</td>
</tr>
<tr>
<td>7 years and 2 months</td>
<td>different</td>
</tr>
<tr>
<td>7 years and 3 months</td>
<td>same</td>
</tr>
<tr>
<td>7 years and 4 months</td>
<td>same</td>
</tr>
<tr>
<td>7 years and 5 months</td>
<td>same</td>
</tr>
<tr>
<td>7 years and 6 months</td>
<td>same</td>
</tr>
<tr>
<td>7 years and 7 months</td>
<td>same</td>
</tr>
<tr>
<td>7 years and 8 months</td>
<td>same</td>
</tr>
<tr>
<td>7 years and 9 months</td>
<td>same</td>
</tr>
</tbody>
</table>
A quarter of the children answered ‘different’.

Convert this fraction into a decimal. Show your workings. [2 marks]

Explain one conclusion that the teacher could draw from the results of this study. [3 marks]

Evaluate McGarrigle and Donaldson’s ‘naughty teddy study’. [4 marks]
You have been asked to conduct a study to investigate at what age children can see things from another person’s point of view.

You need to include:

- a description of the task you would use
- an appropriate hypothesis for your study
- the name of an ethical consideration you will need to deal with in your study.

[5 marks]
Briefly describe the structures and functions of the brain and suggest what roles nature and nurture might have in the early development of these structures.

[9 marks]
A teacher wants to see if there is a difference in the mindsets of her Year 9 and Year 11 students. She designs a questionnaire to measure Year 9 and Year 11 students’ attitudes towards learning. She uses the answers on the questionnaire to identify whether each student has a fixed or a growth mindset.

**18.1** Identify the independent variable in this study. [1 mark]

**18.2** Identify the dependant variable in this study. [1 mark]

**19.1** Write one question the teacher could include in her questionnaire to find out about students’ attitudes towards learning. [1 mark]

**19.2** Identify and briefly explain the type of data the question you have written for 19.1 is likely to produce. [2 marks]
Identify **one** strength and **one** weakness of using a questionnaire to gather data. 

**[2 marks]**

<table>
<thead>
<tr>
<th>Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Weakness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

The teacher uses random sampling to select 20 students from her Year 9 class and 20 students from her Year 11 class to complete her questionnaire.

Describe how the teacher might use random sampling to select 20 students from her Year 9 class. 

**[3 marks]**

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Turn over for the next question

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Discuss one strength and one weakness of using random sampling in this study. [6 marks]
The teacher analyses the answers to each questionnaire to identify whether each student has a fixed or a growth mindset. Her results are shown in Table 3.

**Table 3: Number of students in Year 9 and Year 11 with fixed or growth mindsets**

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of students with a fixed mindset</th>
<th>No. of students with a growth mindset</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 9</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>Year 11</td>
<td>11</td>
<td>9</td>
</tr>
</tbody>
</table>

Use the information in Table 3 to sketch a graph to display the number of students in Year 9 and Year 11 with a fixed or growth mindset.

Provide a suitable title and fully label your graph.
What is the ratio of students with a growth mindset in Year 9 compared to Year 11? Write this ratio in its simplest form. [2 marks]

Explain what the results of the study show about the mindset of Year 9 and Year 11 students. [3 marks]

END OF QUESTIONS