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AQA

Please write clearly in block capitals.

Centre number | | | | | | Candidate number | | | | |

Surname _____

Forename(s) _____

Candidate signature _____
I declare this is my own work.

GCSE
PSYCHOLOGY

Paper 1 Cognition and Behaviour

Wednesday 15 May 2024 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 17 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	
TOTAL	

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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 One factor that can affect the accuracy of memory is context.

Which **two** of the following are most likely to occur due to context?

Shade **two** boxes.

[2 marks]

A We call our new English teacher by our previous teacher's name. ⬭

B We cannot remember information during a class test because we revised for the test at home. ⬭

C We forget our old mobile phone number since we replaced it with a new one. ⬭

D We incorrectly remember our lines in the school play because we have not rehearsed them enough. ⬭

E We see the school librarian in the local supermarket and cannot remember his name. ⬭

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0 2 **Table 1** includes some of the main features of the multi-store model of memory.

Three main features are missing from the table.

Complete all **three** missing parts of **Table 1**.

Write your answers in the correct spaces.

[3 marks]

Table 1

Memory store	Coding	Capacity	Duration
Sensory	The same way it is received from the senses	Very limited	
Short term		7 +/– 2 items	Up to 30 seconds
Long term	Mainly semantic		Lasting up to a lifetime

0 3 Explain what is meant by the 'primacy effect' in recall.

[2 marks]

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0 4 Read the following information.

> In a study into false memory, a researcher asked adult participants to discuss different events from their childhood. The participants' families gave the researcher information about these events.
>
> One of the events was fake and involved a made-up family wedding where red wine had been spilled on the bride's dress.
>
> The researcher wrote down every word that the adults recalled.
>
> He found that two fifths of the participants described details of the wedding, even though the story was made up.

0 4 . 1 Write two fifths as a decimal.

[1 mark]

_____

0 4 . 2 There were 200 participants in the study.

Calculate how many participants did **not** describe details of the wedding.

Show your workings.

[3 marks]

Workings:

Number of participants _____

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0 4 . 3 The researcher claimed that his report on the study also contained qualitative data.

Use the description of the study to justify the researcher's claim.

[2 marks]

0 4 . 4 Ivan was a participant in the study. The researcher asked Ivan about a primary school camping trip to Snowdonia. Ivan remembered that Snowdonia is in Wales. He also recalled celebrating his best friend's birthday during the trip and learning to paddle a canoe. As an adult, he still enjoys paddling a canoe on a nearby lake.

Episodic, procedural and semantic are different types of long-term memory.

Identify **one** example of **each** type from Ivan's discussion about his school trip.

Write your answers in the correct spaces.

[3 marks]

Episodic

Procedural

Semantic

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0 5 The theory of reconstructive memory states that people recreate their memories by actively using what they already know and believe about the world.

Describe **and** evaluate **one** study that has investigated reconstructive memory.

[9 marks]

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Extra space

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Section B

Perception

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

0 6 Name **one** binocular depth cue.

[1 mark]

0 7 Jess is travelling by train and has a window seat. She likes to watch the trees and buildings pass by through the window.

Explain why the speed of the passing trees and buildings helps Jess to perceive how far away they are.

Use your knowledge of motion parallax.

[4 marks]

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0 8 Describe **one** result from Gilchrist and Nesberg's study into the effects of motivation on perception.

[2 marks]

0 9 Outline **one** strength and **one** weakness of Gilchrist and Nesberg's study into the effects of motivation on perception.

[4 marks]

Strength

Weakness

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1 0 . 1 Sketch the Ponzo illusion.

Use the space below for your sketch.

[1 mark]

1 0 . 2 Outline how psychologists explain the Ponzo illusion.

[3 marks]

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1 1 Read the following information.

> A researcher investigated whether participants found it easier to perceive distance if the objects used in the study were familiar to them.
>
> The researcher placed objects at various distances away from the participants. The researcher then asked the participants to estimate how far away from them each object was in metres.
>
> Some objects were familiar to the participants and other objects were unfamiliar to the participants.
>
> Each participant saw an identical set of objects.
>
> The researcher counted up how many times the participants correctly estimated the distance within one metre.

Table 2 shows the results from the study.

Table 2 The number of times the distance was correctly estimated within one metre by participants viewing familiar and unfamiliar objects

	Familiar objects	**Unfamiliar objects**
Number of times the distance was correctly estimated within one metre	57	12

1 1 . 1 Identify the dependent variable in this study.

[2 marks]

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1 1 . 2 The psychologist claimed that the results of this study allowed conclusions to be drawn about the influence of past experience on perception.

Outline **one** conclusion that the psychologist could draw.

[2 marks]

Turn over for the next question

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1 2 You have been asked to investigate the effect of emotion on perception.

Explain how you would design an experiment to do this.

You need to include the following information in your answer:

- what you would ask the participants to do **and** what data you would collect
- the experimental design you would choose **and** why this would be suitable
- the results you would expect to find from your experiment including both conditions of the independent variable.

[6 marks]

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Section C

Development

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

1 3 Which **one** of the following is a feature of Willingham's ideas about learning?

Shade **one** box.

[1 mark]

A A teacher should teach each child according to their preferred learning style. ⬭

B Learning is most effective when the teaching style used matches the content of the lesson. ⬭

C Teaching students in their chosen learning style has a positive effect on their exam results. ⬭

D Visual tasks should always be used when teaching students who have a visualiser style of learning. ⬭

1 4 Briefly evaluate Dweck's Mindset Theory of learning.

[3 marks]

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1 5 Hassan is 8 years old and has asked his sister Rubi for help with his maths homework. Rubi is 13 years old. Rubi is able to solve the maths problems in her head, but Hassan has to count using his fingers.

Explain why Hassan **and** Rubi use different methods when solving maths problems.

Use your knowledge of Piaget's stage theory of cognitive development.

[6 marks]

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1 6 A researcher wants to investigate the most common behaviours displayed by children during the sensorimotor stage of development.

The researcher and an assistant decide to carry out a controlled observation study.

One behaviour being observed is 'shaking a rattle'.

Describe how you would carry out this controlled observation study.

You need to:

- identify a suitable age range of the target population
- suggest **two** suitable behaviour categories that could be used during the observation. **Do not** include 'shaking a rattle' as one of your categories
- briefly describe **two** ways the researcher could make sure there is interobserver reliability
- identify **one** way the researcher could make sure her study is carried out in an ethical manner.

[6 marks]

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1 7 Psychologists have developed many ways to study the brain. A psychologist called Penfield used a method called the Montreal procedure to study the cortex. The method involved gently stimulating parts of the cortex with electricity. Participants were asked to describe any sensations that they experienced.

Outline early brain development.

Discuss the appropriateness of Penfield's method to investigate the brain before birth **and** during the early years of life.

[9 marks]

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Section D

Research Methods

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

1 8 Which of the following is a reason why the range might be calculated in psychological research?

Shade **one** box.

[1 mark]

A To decide whether a sample of participants is representative of the population ⬭

B To find out the most common value in a set of scores ⬭

C To see how well a group of participants has performed compared to another group ⬭

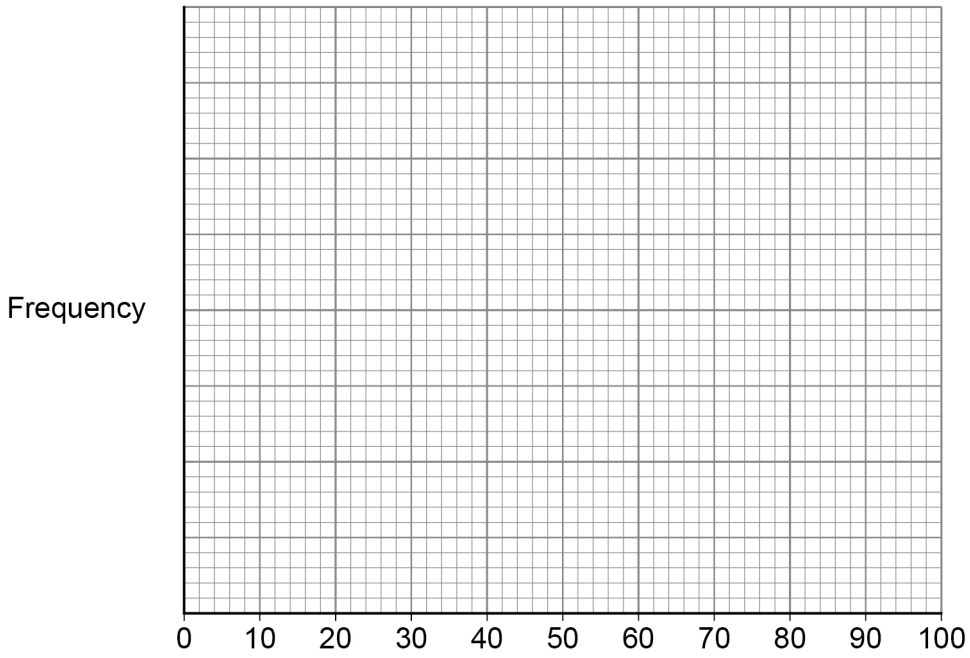
D To tell us how widely dispersed the scores are within a set of data ⬭

1 9 Sketch the shape of a normal distribution on the graph paper.

Clearly label where the mean score would be on your sketch.

[2 marks]

Normal distribution



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2 0 Read the following information.

Watch out – dinosaurs about!

A mobile phone company produced an app called DinoCatch to encourage people to exercise and enjoy more time outdoors. Someone playing DinoCatch would 'catch' digital dinosaurs on their mobile phone. These dinosaurs appeared on their screen when the player arrived at outdoor locations such as parks.

A researcher wanted to assess the impact of DinoCatch in the town of Waterlake. She counted the number of visitors to Waterlake Park between 1–2 pm during each of the 7 days before DinoCatch was introduced and at the same time during each of the 7 days afterwards.

2 0 . 1 Write a suitable **alternative** hypothesis for this study.

[2 marks]

2 0 . 2 Identify **one** extraneous variable that might affect the results of this experiment.

[1 mark]

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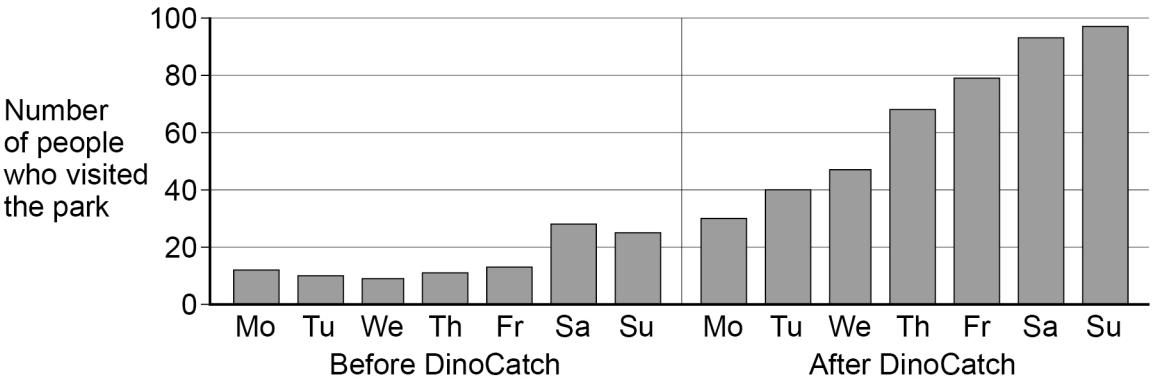
The bar chart in **Figure 1** shows the number of people who visited Waterlake Park in the 7 days before **and** after the introduction of the DinoCatch app.

Figure 1



2 0 . 3 State the number of people who visited the park on the Tuesday (Tu) **after** the DinoCatch app was introduced.

[1 mark]

Number of people _____

2 0 . 4 Outline **two** conclusions that can be drawn from the data in the bar chart.

[2 marks]

Conclusion 1 _____

_____

_____

Conclusion 2 _____

_____

_____

Question 20 continues on the next page

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At the end of the 14-day study, the researcher interviewed 10 participants about their experiences of using the DinoCatch app. She wanted to find out if there was a correlation between time spent outdoors and improvement of mood.

She asked the participants how many hours they had spent outdoors playing DinoCatch during the 7-day period after the app was released. She also asked participants to rate how much their mood had improved on a scale of 0–10.

A rating of 0 meant that their mood had not improved at all.

A rating of 10 meant that their mood had improved a lot.

The results are shown in **Table 3**.

Table 3 Number of hours playing DinoCatch and mood improvement rating

Participant Number	Number of hours spent outdoors playing DinoCatch	Mood improvement rating
1	7	5
2	3	5
3	12	6
4	15	7
5	4	4
6	24	10
7	27	9
8	2	2
9	22	10
10	12	7

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2 0 . 5 Use the graph paper to sketch a scatter diagram to show the results given in **Table 3**.

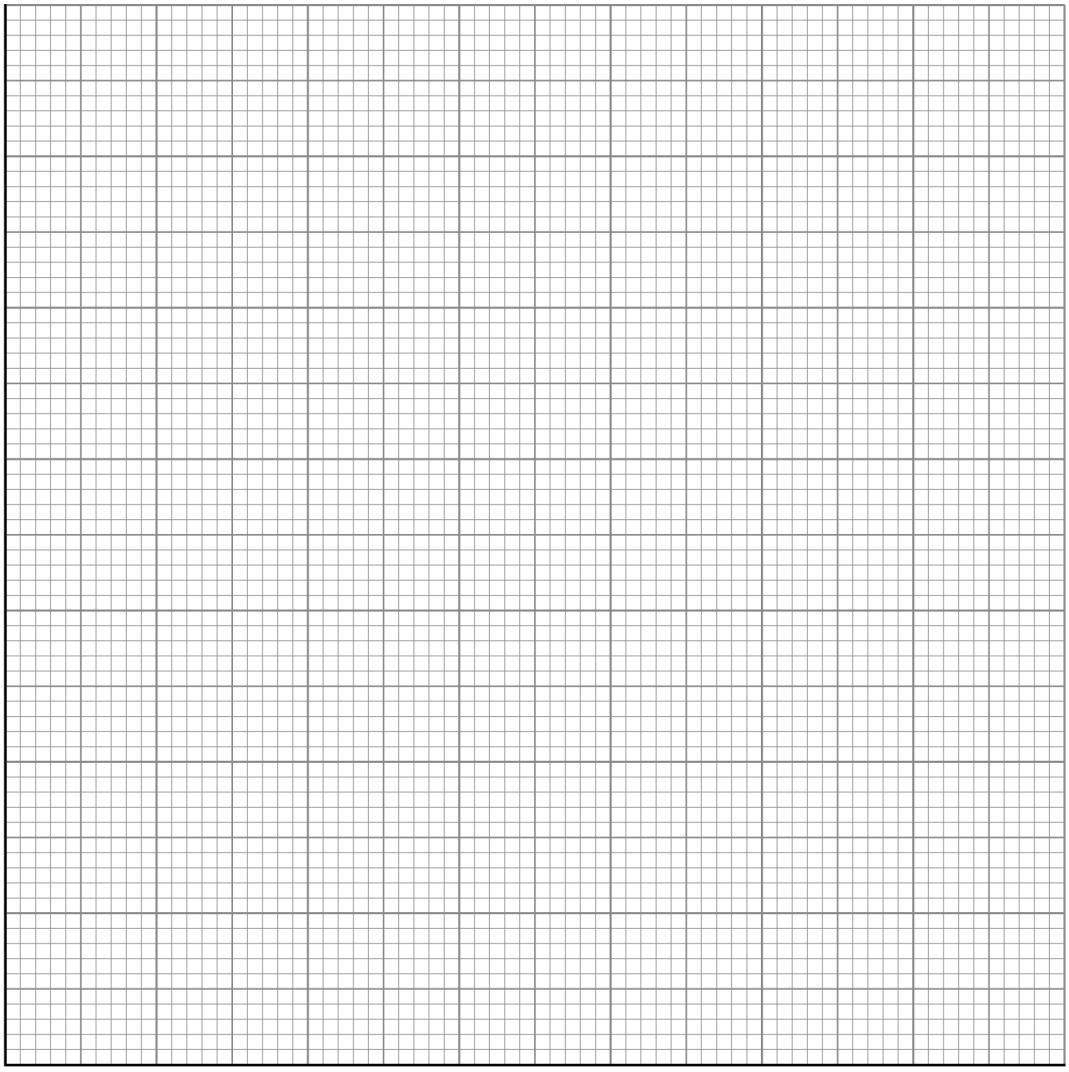
Provide a suitable title for your scatter diagram **and** a label for the **x** axis.

[4 marks]

Title _____

_____

Number of hours spent outdoors playing DinoCatch



2 0 . 6 Estimate the mood improvement rating for someone who played the app for 20 hours.

Use the results from the study to help you.

[1 mark]

Estimated rating _____

Turn over ►

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2 0 . 7 The researcher concluded that playing DinoCatch **caused** participants' mood to improve.

Suggest why the researcher is **not** correct to draw this conclusion.

[2 marks]

2 1 . 1 Explain what is meant by the psychological term 'sample'.

[2 marks]

2 1 . 2 Name **one** sampling method that psychologists might use in their research.

[1 mark]

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2 2 Outline **and** evaluate the use of interviews in psychological research.

[6 marks]

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