GCSE
PSYCHOLOGY
8182/1

Paper 1 Cognition and Behaviour

Mark scheme

June 2020

Version: 1.3 Final Mark Scheme

206G8182/1/MS

Mark schemes are prepared by the Lead Assessment Writer and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all associates participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students' responses to questions and that every associate understands and applies it in the same correct way. As preparation for standardisation each associate analyses a number of students' scripts. Alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, associates encounter unusual answers which have not been raised they are required to refer these to the Lead Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of students' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

Further copies of this mark scheme are available from aqa.org.uk.

Level of response marking instructions

Level of response mark schemes are broken down into levels, each of which has a descriptor. The descriptor for the level shows the average performance for the level. There are marks in each level.

Before you apply the mark scheme to a student's answer read through the answer and annotate it (as instructed) to show the qualities that are being looked for. You can then apply the mark scheme.

Step 1 Determine a level

Start at the lowest level of the mark scheme and use it as a ladder to see whether the answer meets the descriptor for that level. The descriptor for the level indicates the different qualities that might be seen in the student's answer for that level. If it meets the lowest level then go to the next one and decide if it meets this level, and so on, until you have a match between the level descriptor and the answer. With practice and familiarity you will find that for better answers you will be able to quickly skip through the lower levels of the mark scheme.

When assigning a level you should look at the overall quality of the answer and not look to pick holes in small and specific parts of the answer where the student has not performed quite as well as the rest. If the answer covers different aspects of different levels of the mark scheme you should use a best fit approach for defining the level and then use the variability of the response to help decide the mark within the level, ie if the response is predominantly level 3 with a small amount of level 4 material it would be placed in level 3 but be awarded a mark near the top of the level because of the level 4 content.

Step 2 Determine a mark

Once you have assigned a level you need to decide on the mark. The descriptors on how to allocate marks can help with this. The exemplar materials used during standardisation will help. There will be an answer in the standardising materials which will correspond with each level of the mark scheme. This answer will have been awarded a mark by the Lead Examiner. You can compare the student's answer with the example to determine if it is the same standard, better or worse than the example. You can then use this to allocate a mark for the answer based on the Lead Examiner's mark on the example.

You may well need to read back through the answer as you apply the mark scheme to clarify points and assure yourself that the level and the mark are appropriate.

Indicative content in the mark scheme is provided as a guide for examiners. It is not intended to be exhaustive and you must credit other valid points. Students do not have to cover all of the points mentioned in the Indicative content to reach the highest level of the mark scheme.

An answer which contains nothing of relevance to the question must be awarded no marks.

Examiners are reminded that AO1 and AO2 are regarded as interdependent. When deciding on a mark in instances where there is an attempt at more than one assessment objective all attempts should be considered together using the best fit approach. In doing so, examiners should bear in mind the relative weightings of the assessment objectives.

When an answer only contains content related to one of the skills (AO1/AO2), then the levels descriptors for the award of marks for the skill attempted should be applied to the answer, up to the maximum mark available.

Section A

Memory

01	Which is the **best** example of information that would be stored as procedural memory? Shade **one** box. A. How many millilitres there are in a litre B. How to play a piece of music on the piano C. The colours used in the Italian flag D. What happened on your first day at secondary school **[1 mark]**

Marks for this question: AO2 – 1 mark

Answer – B

02	Which of the following statements about short-term memory (STM) is true? Shade **one** box. A. STM can hold information for up to 30 seconds. B. STM can store approximately 15 pieces of information. C. STM transfers information to long-term memory through attention. D. STM usually encodes information semantically. **[1 mark]**

Marks for this question: AO1 – 1 mark

Answer – A

03	Evaluate the multi-store model of memory. **[5 marks]**

Marks for this question: AO3 – 5 marks

Level	Marks	Description
3 Detailed	**4–5**	Analysis and evaluation of the multi-store model of memory is effective. Any conclusions drawn are sound and fully expressed. Relevant terminology is used consistently throughout. The answer demonstrates a high level of substantiated reasoning, and is clear, coherent and focused.
2 Clear	**2–3**	There may be some effective analysis and evaluation of the multi-store model of memory. There may be an attempt to draw conclusions. Relevant terminology is used. The answer frequently demonstrates substantiated reasoning, and is clear, generally coherent and focused although structure may lack some logic.
1 Basic	**1**	Analysis and evaluation of the multi-store model of memory is of limited effectiveness or muddled. Any attempts to draw conclusions are not always successful or present. Relevant terminology is occasionally used. The answer lacks clarity, coherence, focus and logical structure.
0	**0**	No relevant content.

Possible content:

- The multi-store model of memory does not explain how you can remember some information even though you have not rehearsed it and also struggles to explain why we can forget information that we have practised and rehearsed.
- There is research evidence to support the idea that there are distinct sensory, short-term and long-term memory stores. Research shows that sensory, short-term and long-term memory are usually encoded in different forms and also differ in their duration and capacity.
- It can provide practical ideas for how to remember things more effectively. For example, we need to pay attention when our teacher is talking to us because information is only passed from sensory to short-term memory if we pay attention to it.
- The multi-store model has been criticised for being oversimplified. For example, it states we have one single long-term memory store. However, other research evidence has shown that there are several types of long-term memory; procedural, episodic and semantic.

Accept other relevant content.

04	Describe Bartlett's 'War of the Ghosts' study. **[4 marks]**

Marks for this question: AO1 – 4 marks

Level	Marks	Description
2 Clear	**3–4**	Clear and accurate knowledge and understanding of Bartlett's War of the Ghosts study with some detail. Relevant terminology is used consistently throughout. The answer demonstrates a high level of substantiated reasoning is clear, coherent and focused.
1 Basic	**1–2**	Limited or muddled knowledge and understanding of Bartlett's War of the Ghosts study is present. Relevant terminology is occasionally used. The answer occasionally demonstrates substantiated reasoning, but may lack clarity, coherence, focus and logical structure.
0	**0**	No relevant content.

Possible content:

AO1

- To investigate how memory for an unfamiliar story is affected by cultural expectations or to see how memory is reconstructed.
- British participants were given a Native American Indian story called 'The War of the Ghosts'.
- After a short period of time, they were asked to retell the story. This took place several times.
- Bartlett found that participants remembered the key themes in the story. However, the story was shortened when it was retold and some parts were omitted.
- Participants altered some details of the story to fit in with their own cultural experiences. For example, they changed 'canoes' to 'boats'.
- Bartlett concluded that how stories are remembered depends on existing cultural knowledge or schemas.

Credit other relevant content.

05	Use your knowledge of the theory of reconstructive memory to explain why each eyewitness gave different descriptions of the same robber. **[6 marks]**

Marks for this question: AO1 – 3 marks, AO2 – 3 marks

Level	Marks	Description
3 Detailed	**5–6**	AO1: Relevant knowledge and understanding of the theory of reconstructive memory is accurate with detail. AO2: Clear application of knowledge and understanding of reconstructive memory to explain why each eyewitness gave different descriptions of the same robber. Relevant terminology is used consistently throughout. The answer demonstrates a high level of substantiated reasoning, and is clear, coherent and focused.
2 Clear	**3–4**	AO1: Relevant knowledge and understanding of the theory of reconstructive memory is present but there are occasional inaccuracies/omissions. AO2: Reasonable application of knowledge and understanding of reconstructive memory to explain why each eyewitness gave different descriptions of the same robber. Relevant terminology is occasionally used. The answer occasionally demonstrates substantiated reasoning, but may lack clarity, coherence, focus and logical structure.
1 Basic	**1–2**	AO1: Knowledge and understanding of the theory of reconstructive memory is present but limited. AO2: Limited application of knowledge and understanding of reconstructive memory to explain why each eyewitness gave different descriptions of the same robber. Relevant terminology is occasionally used. The answer occasionally demonstrates substantiated reasoning, but may lack clarity, coherence, focus and logical structure.
0	**0**	No relevant content.

Possible content:

AO1

- Memory is not like a video recording. This means that memories may not be an accurate version of events.
- Memory is an active process in which we try to make sense of events and information using our previous knowledge and experience (effort after meaning).
- We can alter our memories so that they fit in with our social and cultural expectations/schemas.

- The way we store and recall information can be influenced by stereotypes.

AO2
- The two eyewitnesses gave different descriptions of the same robber because they made sense of the events they saw in different ways.
- Their own experiences and expectations such as what they have heard in the news or seen in films will shape how they remember the robber.
- One eyewitness may have expected robbers to carry a weapon which explains why they remember him as carrying a knife.
- The other eyewitness may have a stereotype that people who commit crimes often wear hoodies which explains why they remember him as wearing a hoodie.

Accept other relevant content.

06	Explain **one** weakness of the reconstructive theory of memory. **[2 marks]**

Marks for this question: AO3 – 2 marks

Up to **2 marks** for an explanation.
2 marks: a clear and accurate explanation.
1 mark: a limited or muddled explanation

Possible content:

- It does not help us to understand why some memories are not actively reconstructed and are remembered accurately.
- Some research has found that recall of familiar / personal and unambiguous stories can be accurate and detailed. This suggests that not all events are changed and reconstructed when they are recalled.

Credit other relevant weaknesses.

Note: Evaluation of the 'War of the Ghosts' study alone, without reference to how that impacts on the theory, can get a maximum of 1 mark.

07	You have been asked to investigate the effect of context on the accuracy of memory. Describe how you would design an experiment to do this. You need to include the following information in your answer: • what you would ask participants to do and what data you would collect • one extraneous variable that could affect your results and how you could control it • the results you would expect to find from your experiment. **[6 marks]**

Marks for this question: AO2 – 4 marks and AO3 – 2 marks

AO2

1 mark for description of suitable task.

PLUS

1 mark for description of data collected.

PLUS

Up to 2 marks for one relevant extraneous variable and how it would be controlled.

2 marks for a clear and accurate description.

1 mark for a limited or muddled description.

AO3

2 marks: a clear and accurate description of the expected results with both conditions of the IV.

1 mark: a limited or muddled description of the expected results.

NOTE: if a student only describes a known study rather than basing their design on a known study (max 1 mark).

NOTE: The extraneous variable and control may be creditworthy even if the study is not.

Total Section A – 25 marks

Section B

Perception

08	Which **two** of the following are binocular depth cues? Shade **two** boxes. A. Convergence B. Height in plane C. Linear perspective D. Relative size E. Retinal disparity **[2 marks]**

Marks for this question: AO1 – 2 marks

A, E

09	Which is the **best** explanation for the visual illusion known as the Ames room? Shade **one** box. A. Ambiguity B. Fiction C. Occlusion D. Size constancy **[1 mark]**

Marks for this question: AO1 – 1 mark

D

10	Briefly evaluate Gibson's direct theory of perception. **[4 marks]**

Marks for this question: AO3 – 4 marks

Level	Marks	Description
2 Clear	**3–4**	Analysis and evaluation of Gibson's direct theory of perception is effective. Any conclusions drawn are sound and fully expressed. Relevant terminology is used consistently throughout. The answer demonstrates a high level of substantiated reasoning, is clear, coherent and focused.
1 Basic	**1–2**	Analysis and evaluation of Gibson's direct theory of perception is of limited effectiveness or muddled. Any attempts to draw conclusions are not always successful. Relevant terminology is occasionally used. The answer occasionally demonstrates substantiated reasoning, but may lack clarity, coherence, focus and logical structure.
0	**0**	No relevant content.

Possible content:

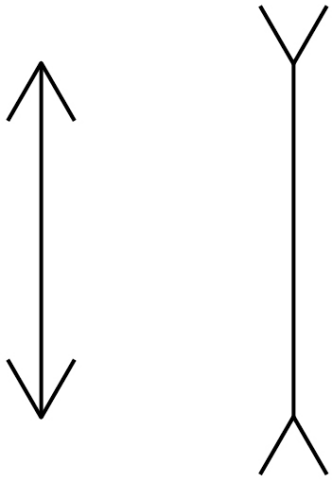
- Gibson's theory cannot explain why perception is sometimes inaccurate, for example when our brain is tricked by visual illusions.
- Gibson's theory provides a good explanation for how we are usually able to perceive quickly and accurately in everyday life using information from the optic array.
- Gibson's theory has helped us to understand the richness of the optical information our eyes receive, such as texture and colour gradient.
- Gibson developed his theory using evidence collected in real life settings such as using pilots rather than through laboratory experiments. This increases the validity of his theory.
- Evidence shows that factors such as expectation and culture affect perception. This challenges Gibson's theory and suggests that nurture (knowledge and past experience) also play an important role in perception.
- There is research evidence to support the idea that depth perception is innate. Gibson and Walk found that infants have abilities for perceiving depth even at a very young age. This supports the idea that perception may be due to nature.

Credit other relevant evaluation.

11.1	Sketch the Müller-Lyer illusion. **[1 mark]**

Marks for this question: AO1 – 1 mark

1 mark for sketching the Müller-Lyer illusion.



NOTE: The two longer lines need to be similar in length, but not necessarily identical, to be creditworthy.

11.2	Outline how psychologists would explain the Müller-Lyer illusion. **[3 marks]**

Marks for this question: AO1 - 3 marks

Up to **3 marks** for a relevant explanation of the Müller-Lyer illusion.

3 marks: a clear and detailed explanation.

2 marks: a limited explanation.

1 mark: a muddled explanation.

Possible content:

- The illusion occurs because of misinterpreted depth cues caused by the arrows at the end of each line.
- The arrow heads with outward fins make the line look like the far corner of a room/far away from us.
- The arrow heads with inward fins make the line look like the near edge of a building/close to us.
- We unconsciously scale up the line with outward fins thinking that, as it is farther away than the line with inward fins, it must be longer.

Accept other relevant content.

NOTE: 'Outward fins' and 'inward arrow heads' are seen to be the same.
'Inward fins' and 'outward arrow heads' are seen to be the same.

12.1	Calculate the percentage of students in Group B who saw **Figure 1** as a rabbit. State your answer using **two** significant figures **and** show your workings. **[3 marks]**

Marks for this question: AO2 – 3 marks

3 marks for correct percentage to two significant figures.

13

2 marks for the correct percentage but not rounded to two significant figures.

For example 13.33 or 13.0

1 mark for correct workings.

2/15 x 100

12.2	Which of the following is the correct fraction of Group A who saw **Figure 1** as a duck? Shade **one** box. **[1 mark]**

Marks for this question: AO2 – 1

C

12.3	Use your knowledge of **one** factor that affects perception to explain the results shown in **Table 1**. **[4 marks]**

Marks for this question: AO1 – 2, AO2 – 2

Level	Marks	Description
2 Clear	**3–4**	AO1: Clear and accurate knowledge of the effect of expectation on perception with some detail. AO2: Clear and accurate application of knowledge and understanding to explain the results in **Table 1**. Relevant terminology is used consistently throughout. The answer demonstrates a high level of substantiated reasoning, and is clear, coherent and focused.
1 Basic	**1–2**	AO1: Limited or muddled knowledge of the effect of expectation on perception is present. AO2: Limited or muddled application of knowledge and understanding to explain the results in **Table 1**. Relevant terminology is occasionally used. The answer occasionally demonstrates substantiated reasoning, but may lack clarity, coherence, focus and logical structure.
0	**0**	No relevant content.

Possible content:

AO1

- One factor affecting perception is expectation. We often perceive what we expect or anticipate seeing.
- Our past experiences shape what we expect to see (create a perceptual set) so that we are more ready to perceive some objects than others.

AO2

- In this experiment, Group A were shown pictures of rabbits before they were shown **Figure 1**, which is an ambiguous image. They were ready to perceive another rabbit due to this recent experience (perceptual set). This is why 11 out of 15 participants in Group A saw **Figure 1** as a rabbit and only 3 out of 15 saw a duck.
- In this experiment, 13 out of 15 participants in Group B saw a duck compared with 3 out of 15 in Group A. This was because only Group B were shown pictures of ducks before they were shown **Figure 1**, which is an ambiguous image.

NOTE: The only relevant factor is expectation.

Accept other relevant content.

13	Outline how culture can affect perception. Refer to **both** Marc **and** José's comments in your answer. **[4 marks]**

Marks for this question: AO1 – 2 marks, AO2 – 2 marks

Level	Marks	Description
2 Clear	**3–4**	AO1: Clear and accurate knowledge and understanding of how culture can affect perception with some detail. AO2: Clear and accurate application of knowledge and understanding of the influence of culture to Marc **and** José's perception. Relevant terminology is used consistently throughout. The answer demonstrates a high level of substantiated reasoning, and is clear, coherent and focused.
1 Basic	**1–2**	AO1: Limited or muddled knowledge and understanding of how culture can affect perception is present. AO2: Limited or muddled application of knowledge and understanding of the influence of culture to Marc **and/or** José's perception. **OR** Only application of knowledge and understanding of the influence of culture to Marc **or** José at Level 2. Relevant terminology is occasionally used. The answer occasionally demonstrates substantiated reasoning, but may lack clarity, coherence, focus and logical structure.
0	**0**	No relevant content.

Possible content:

AO1
- The culture in which we live influences our upbringing, experiences and how we make sense of the world around us.
- Gregory's constructivist theory of perception says we use our stored knowledge and experiences when we perceive things.
- This leads us to have cultural expectations which shape the way we perceive the world around us.

AO2
- Marc has grown up on a farm so is more likely to know what farm animals eat. This is why he thinks the cat is the odd one out as the sheep eats grass.
- José has grown up in a city so he is more likely to think of animals as pets. This is why he thinks the grass is the odd one out.

NOTE: The AO1 may be embedded in the body of the answer.
Accept other relevant content.

14	Explain **one** strength of using laboratory experiments in research. **[2 marks]**

Marks for this question: AO3 – 2

Up to **2 marks** for one relevant strength of using laboratory experiments in research.

2 marks: a clear and accurate explanation.

1 mark: a limited or muddled explanation.

Possible content:

- One strength is it gives researchers a high level of control over extraneous variables.
- This makes it easier to measure how the independent variable affects the dependent variable.
- One strength is it is easier to standardise procedures.
- This makes it easier for other researchers to replicate research using different samples.

Accept other relevant content.

Total Section B – 25 marks

Section C

Development

15	Sienna is planning her holiday. Which part of the brain plays a key role in this activity? Shade **one** box only. A. Brain stem B. Cerebellum C. Cortex D. Thalamus **[1 mark]**

Marks for this question: AO2 – 1 mark

C

16	Matt is looking at a drawing of how castles were designed. Which **one** of the following learning styles is he using? Shade **one** box only. A. Fixed B. Growth C. Verbaliser D. Visualiser **[1 mark]**

Marks for this question: AO2 – 1 mark

D

17	According to Piaget's theory of cognitive development, during which stage will a child first start to look for something that has been hidden from view? Shade **one** box only. A. Concrete operational B. Formal operational C. Pre-operational D. Sensorimotor **[1 mark]**

Marks for this question: AO1 – 1 mark

D

18.1	Outline **one** example of how Mr Taylor can use praise to improve Jana's learning. **[2 marks]**

Marks for this question: AO2 – 2 marks

Up to **2 marks** for an example.
2 marks: a clear and accurate example.
1 mark: a limited or muddled example.

Examples:

- he can send email home when she completes a good piece of work
- he can say well done when she puts good effort into a task
- he can give her a merit for answering a question in class.

Credit other relevant examples.

NOTE: Answers that give an example, and an explanation of how the example can increase learning can be considered fair and accurate.

NOTE: Reference to praising effort or ability can be creditworthy.

18.2	Outline **one** example of how Mr Taylor can increase Jana's self-efficacy. **[2 marks]**

Marks for this question: AO2 – 2 marks

Up to **2 marks** for example
2 marks: a clear and accurate example
1 mark: a limited or muddled example

Examples:

- he can set her easier questions so that she can complete them successfully
- he can break down tasks into steps and help her to complete one step at a time
- he can point out to Jana that other students get stuck then work to overcome problems
- he can praise Jana when she successfully completes tasks, plus an explanation of how this can increase Jana's self-efficacy.

Credit other relevant examples.

19	Use your knowledge of **both** negative schemas as an explanation for depression **and** Dweck's Mindset theory of learning to explain why these two students responded in different ways. Briefly evaluate **both** negative schemas as an explanation for depression **and** Dweck's Mindset theory. **[9 marks]**

Marks for this question: AO1 – 3, AO2 – 3, AO3 – 3

Level	Marks	Description
3 Detailed	**7–9**	AO1: Relevant knowledge and understanding of Dweck's Mindset theory of learning **and** negative schemas as an explanation for depression is accurate with detail. AO2: Clear application of knowledge and understanding of Dweck's Mindset theory of learning **and** negative schemas as an explanation for depression to the students' responses. AO3: Analysis and evaluation of Dweck's Mindset theory of learning **and** negative schemas as an explanation for depression is effective. Any conclusions drawn are sound and fully expressed. Relevant terminology is used consistently throughout. The answer demonstrates a high level of substantiated reasoning, is clear, coherent and focused.
2 Clear	**4–6**	AO1: Relevant knowledge and understanding of Dweck's Mindset theory of learning **and/or** negative schemas as an explanation for depression is present but there are occasional inaccuracies/omissions. AO2: Reasonable application of knowledge and understanding of Dweck's Mindset theory of learning **and/or** negative schemas as an explanation for depression to the students' responses. AO3: There may be some effective analysis and evaluation of Dweck's Mindset theory of learning **and/or** negative schemas as an explanation for depression. There may be an attempt to draw conclusions. Relevant terminology is usually used. The answer frequently demonstrates substantiated reasoning, and is clear, generally coherent and focused although structure may lack some logic.
1 Basic	**1–3**	AO1: Knowledge and understanding of Dweck's Mindset theory of learning **and/or** negative schemas as an explanation for depression is present but limited. AO2: Limited application of knowledge and understanding of Dweck's Mindset theory of learning **and/or** negative schemas as an explanation for depression to the students' responses.

		AO3: Analysis and evaluation of Dweck's Mindset theory of learning **and/or** negative schemas as an explanation for depression is of limited effectiveness or may be absent. Any attempts to draw conclusions are not always successful or present. Relevant terminology is occasionally used. The answer occasionally demonstrates substantiated reasoning, but may lack clarity, coherence, focus and logical structure.
0	**0**	No relevant content.

Possible content:

AO1
- People with a fixed mindset believe that success is due to innate factors like genes. This means there is nothing you can do to change your ability or talent.
- People with a growth mindset believe that ability and success is due to hard work and perseverance.
- Negative schemas lead people to interpret events in a biased way. They tend to interpret things in pessimistic ways and often ignore more positive ways of viewing events.

AO2
- Mason's comments suggest he has a fixed mindset. He thinks there will always be other people more talented than him and that here is nothing he can do to change this.
- Kyle's comments suggest he has a growth mindset. He is using feedback from the coach to improve his fitness and increase the likelihood of being chosen in the future.
- Mason's comments suggest he may have negative schemas because he only sees the bad things about this situation. For example, he has decided the coach does not like him even though there is no evidence that this is the case.

AO3
- One strength of mindset theory is that people can change their mindset and this can be used to improve performance in different contexts such as at school, in sports or in the workplace.
- Knowledge and understanding of negative schemas has led to effective treatments for mental health disorders like depression through helping people to identify and challenge their negative patterns of thinking.

Accept other relevant content.

20	Hughes investigated egocentrism in his 'policeman doll study'. Describe this study. **[4 marks]**

Marks for this question: AO1 – 4 marks

Level	Marks	Description
2 Clear	**3–4**	Clear and accurate knowledge and understanding of Hughes' policeman doll study with some detail. Relevant terminology is used consistently throughout. The answer demonstrates a high level of substantiated reasoning, is clear, coherent and focused.
1 Basic	**1–2**	Limited or muddled knowledge and understanding of Hughes' policeman doll study is present. Relevant terminology is occasionally used. The answer occasionally demonstrates substantiated reasoning, but may lack clarity, coherence, focus and logical structure.
0	**0**	No relevant content.

Possible content:

- Thirty children aged from 3.5 to 5 years old took part in the laboratory study.
- Hughes tested egocentrism using a model of two intersecting walls, a boy doll and two policeman dolls.
- To introduce the task, a policeman doll was placed on the model. Each child was asked to hide the boy doll from the policeman doll.
- The child was told if they made a mistake, and was allowed to try the task again.
- In the actual experiment, a second policeman doll was placed on the model and the child was asked to hide the boy doll so that neither of the policeman dolls could see him.
- Ninety percent of the children were able to hide the boy doll from the policeman dolls.
- Hughes concluded that most children between 3.5 and 5 years old can see things from another person's point of view so are not egocentric in their thinking.

21	Evaluate Hughes' 'policeman doll study'. **[5 marks]**

Marks for this question: AO3 – 5

Level	Marks	Description
3 Detailed	**4–5**	Evaluation of Hughes' 'Policeman doll study' is effective. Any conclusions drawn are sound and fully expressed. Relevant terminology is used consistently throughout. The answer demonstrates a high level of substantiated reasoning, is clear, coherent and focused.
2 Clear	**2–3**	There may be some effective evaluation of Hughes' 'Policeman doll study'. There may be an attempt to draw conclusions. Relevant terminology is usually used. The answer frequently demonstrates substantiated reasoning, and is clear, generally coherent and focused although structure may lack some logic.
1 Basic	**1**	Evaluation of Hughes' 'Policeman doll study' is of limited effectiveness. Any attempts to draw conclusions are not always successful or present. Relevant terminology is occasionally used. The answer occasionally demonstrates substantiated reasoning, but may lack clarity, coherence, focus and logical structure.
0	**0**	No relevant content.

Possible content:

AO3

- One strength of the study is that asking children to hide a doll made the task engaging and meaningful to children. It can be argued that this meant children were better able to show their cognitive ability than in Piaget's original research.
- A limited sample of children was used as all of the participants came from Edinburgh. This means it may be problematic to generalise these findings to explain when children from other cultures can see things from another person's point of view.
- Other research studies support the findings that some children under seven-years-old can see things from other person's point of view.
- One strength of this study is that it challenged Piaget's conclusion that children are egocentric in their thinking until the age of about seven-years-old. It suggested that some children can see the world from different viewpoints at a significantly younger age than was previously thought.

Accept other relevant evaluation.

NOTE: Answers that only give generic evaluations are considered to be Basic.

Total Section C – 25 marks

Section D

Research Methods

22	Which **two** of the following are commonly understood to be advantages of case studies? Shade **two** boxes. A. The conclusions drawn are objective. B. The findings can be easily generalised to the behaviour of other people. C. They are easy for others to replicate. D. They can be used to study rare and unusual behaviours. E. They provide rich and detailed information. **[2 marks]**

Marks for this question: AO1 – 2 marks

D, E

23	Which **one** of the following statistics is calculated by finding the difference between the smallest and largest values in a set of data? Shade **one** box only. A. Mean B. Median C. Mode D. Range **[1 mark]**

Marks for this question: AO2 – 1 mark

D

24	Outline what is meant by independent groups **and** repeated measures. Discuss the strengths and weaknesses of **both** of these types of experimental design. **[9 marks]**

Marks for this question: AO1 – 4, AO3 – 5

Level	Marks	Description
3 Detailed	**7–9**	AO1: Relevant knowledge and understanding of independent groups **and** repeated measures is accurate with detail. AO3: Analysis of the strengths and weaknesses of independent groups **and** repeated measures is effective. Any conclusions drawn are sound and fully expressed. Relevant terminology is used consistently throughout. The answer demonstrates a high level of substantiated reasoning, is clear, coherent and focused.
2 Clear	**4–6**	AO1: Relevant knowledge and understanding of independent groups **and** repeated measures is present but there are occasional inaccuracies/omissions. AO3: There may be some effective analysis of the strengths and weaknesses of independent groups **and** repeated measures. There may be an attempt to draw conclusions. Relevant terminology is usually used. The answer frequently demonstrates substantiated reasoning and is clear, generally coherent and focused although structure may lack some logic.
1 Basic	**1–3**	AO1: Knowledge and understanding of independent groups **and** repeated measures is present but limited. AO3: Analysis of the strengths and weaknesses of independent groups **and** repeated measures is of limited effectiveness or may be absent. Any attempts to draw conclusions are not always successful or present. Relevant terminology is occasionally used. The answer occasionally demonstrates substantiated reasoning, but may lack clarity, coherence, focus and logical structure.
0	**0**	No relevant content.

Possible content:

AO1

- In an independent groups design, different participants are used for each condition of the independent variable.
- This usually means that one group of participants completes the control condition and a different group of participants completes the experimental condition.

- In a repeated measures design each participant completes all conditions in an experiment.
- This means that the same group of participants completes all the experimental and control conditions.

AO3
- With an independent groups design, participant variables such as intelligence may influence the results for each group. This means it can be problematic to compare the results of the experimental group to the control group.
- A repeated measures design has no participant variables as the same participants take parts in both conditions. This means the results for each participant for both conditions can be directly compared.
- More participants are needed with an independent groups design as you need a different group of participants for each condition.
- Less participants are needed in a repeated measures design as only one group of participants is used so this can be less expensive and quicker.
- With an independent groups design there are no order effects as participants only complete one condition.

Accept other relevant content.

25.1	Outline **one** strength of using a stratified sample when conducting research. **[2 marks]**

Marks for this question: AO3 – 2 marks

Up to **2 marks** for outlining one strength.

2 marks: a clear and accurate outline.

1 mark: a limited or muddled outline.

Possible content:

AO3
- Stratified samples are representative because they ensure each subgroup of the target population is included in the sample. This increases generalisability.
- Participants are selected randomly from subgroups, this decreases the possibility of investigator bias.

Accept other relevant content.

25.2	Give a definition of **both** qualitative **and** quantitative data. **[2 marks]**

Marks for this question: AO1 – 2 marks

1 mark for a clear definition of qualitative data:

Qualitative data is information that is descriptive and non-numerical.

PLUS

1 mark for a clear definition of quantitative data:

Quantitative data is information that is numerical.

25.3	When collecting information about mental well-being, explain why collecting qualitative data rather than quantitative data may increase the validity of the data collected by the researcher? **[2 marks]**

Marks for this question: AO2 – 2 marks

Up to **2 marks** for an explanation.
2 marks: a clear and accurate explanation.
1 mark: a limited or muddled explanation **OR** no link to the mental well-being data.

Possible content:

- When qualitative data is collected people are not limited by a list of fixed responses, because they express their mental well-being in their own words.
- This increases the validity of the data collected as these responses will better represent their actual mental well-being.

Accept other relevant content.

25.4	Identify the mode for the average daily exercise scores shown in **Table 3**. **[1 mark]**

Marks for this question: AO2 – 1 mark

Mode = 30

Accept 30 (minutes)

25.5	Calculate the median for the average mental well-being scores shown in **Table 3**. **[1 mark]**

Marks for this question: AO2 – 1 mark

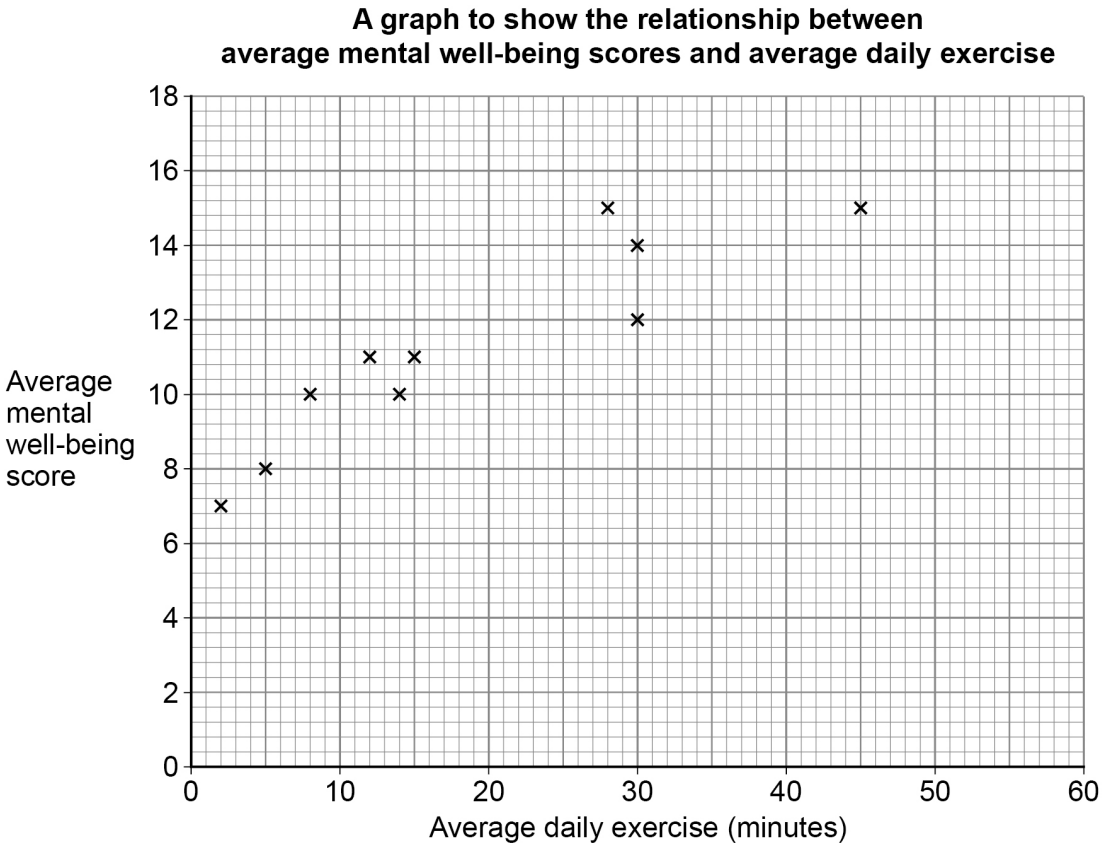
Median = 11

25.6	Use the graph paper to sketch a scatter diagram to show the results shown in **Table 3**. Provide a suitable title and labels for your diagram. **[4 marks]**

Marks for this question: AO2 – 4 marks

Up to **4 marks** for sketching and labelling a scatter diagram.

- Informative title (1 mark).
- Correct labelling of both axes (1 mark).
- Correct scaling of both axes (1 mark).
- Correct plotting of the results (1 mark).



25.7	Identify the type of correlation the researcher has found between exercise and mental well-being. Shade **one** box only. A. Negative correlation B. No correlation C. Perfect correlation D. Positive correlation **[1 mark]**

Marks for this question: AO2 – 1 mark

D

Total Section D – 25 marks