

**GCSE
PSYCHOLOGY
8182/2**

Paper 2 Social context and behaviour

Mark scheme

June 2022

Version: 1.0 Final Mark Scheme



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.

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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.

Possible 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 possible 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

Social influence

01	<p>People in crowds may join in with anti-social behaviour because they lose their sense of personal identity and feel less responsibility for their actions.</p> <p>Which one of the following factors causes this?</p> <p>Shade one box.</p> <p style="text-align: right;">[1 mark]</p>
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Marks for this question: AO1 – 1 mark

Answer

A (Deindividuation)

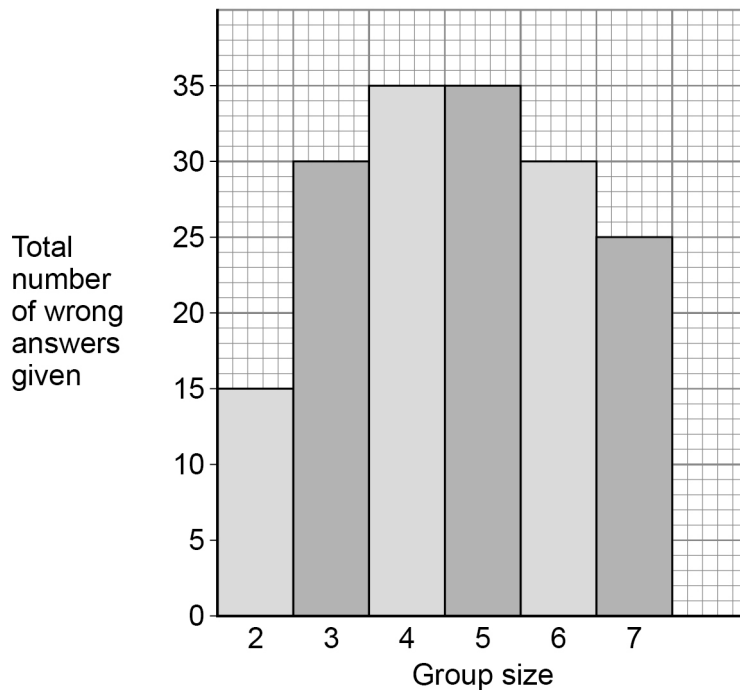
02.1	<p>Use the results in Table 1 to draw a histogram.</p> <p>Provide a suitable title and labels for your histogram.</p> <p style="text-align: right;">[4 marks]</p>
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Marks for this question: AO2 – 4 marks

1 mark for each of the following:

- Suitable graph ie a histogram.
- Informative title, for example ‘A histogram to show the total wrong answers given by people in groups of between 2 and 7 people.’
- Correct labelling of **both** axes, for example ‘Total number of wrong answers given’ and ‘group size’ PLUS suitable scale/numbers for **both** axes.
- Correct plotting of the results from **Table 1**.

A histogram to show the total wrong answers given by people in groups of between 2 and 7 people.



NOTE: If bars are not touching then no credit can be given for ‘suitable graph’.

NOTE: To be considered to be an ‘informative title’, there needs to be an element of both variables.

02.2	<p>What is the ratio of the number of times the participants gave the wrong answer when the group size was 2 compared to when the group size was 6?</p> <p>Write this ratio in its simplest form.</p> <p style="text-align: right;">[1 mark]</p>
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Marks for this question: AO2 – 1 mark

1:2

02.3	<p>Outline one conclusion that the psychologist could draw about conformity from the results in Table 1.</p> <p style="text-align: right;">[2 marks]</p>
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Marks for this question: AO3 – 2 marks

Up to **2 marks** for an outline of one conclusion **about conformity** drawn from the results in **Table 1**.

2 marks: a clear and accurate outline.

1 mark: a limited or muddled outline.

Examples:

- People are most likely to conform in groups of 4 or 5. (2 marks)
- As group size increases so does conformity. (1 mark)
- The smaller the group, the less conformity. 1 mark)
- The larger the group the more wrong answers. (0 marks)

Credit other relevant content.

NOTE: To be considered as clear and accurate, an outline needs to clearly be relevant to the results in the table but does not need to use any numbers.

NOTE: If the candidate has written about more than one conclusion, award marks to the **one** that is clearest and most effective.

02.4	<p>In research investigating conformity, participants are often not told the real reason for the research. This goes against the British Psychological Society guidelines on ethical issues.</p> <p>Justify the use of deception in studies of conformity.</p> <p style="text-align: right;">[2 marks]</p>
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Marks for this question: AO3 – 2 marks

Up to **2 marks** for a justification for the use of deception in studies of conformity.

2 marks: a clear and accurate justification.

1 mark: a limited or muddled justification.

Possible content:

- Conformity is about changing behaviour because of pressure from the group – knowing the pressure was not real but part of an experiment, would reduce the effect on behaviour and make any findings less valid.
- Once participants know what the real aim of the study is, they could try to help / hinder the researcher. This means that the behaviour being measured would be less likely to be natural behaviour. This may make the findings less reliable/valid.

Credit other relevant content.

NOTE: References to results not being accurate are not creditworthy as a justification.

03	<p>Social factors can affect obedience.</p> <p>Use your knowledge of social factors to explain Nathan’s likely behaviour.</p> <p>Refer to Nathan being told to help carry shopping bags and when he was told to put the rubbish into the bin.</p> <p style="text-align: right;">[4 marks]</p>
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Marks for this question: AO1 – 2 marks and AO2 – 2 marks

Level	Marks	Description
2 Clear	3–4	<p>AO1: Clear and accurate knowledge and understanding of how social factors can affect obedience with some detail.</p> <p>AO2: Clear and accurate application of knowledge and understanding of how social factors can affect obedience to explain Nathan’s likely behaviour when he was told to help carry shopping bags and when he was told to put the rubbish into the bin.</p> <p>Relevant terminology is used consistently throughout. The answer demonstrates a high level of substantiated reasoning, and is clear, coherent and focused.</p>
1 Basic	1–2	<p>AO1: Limited or muddled knowledge and understanding of how social factors can affect obedience is present.</p> <p>AO2: Limited or muddled application of knowledge and understanding of how social factors can affect obedience to explain Nathan’s likely behaviour when he was told to help carry shopping bags and/or when he was told to put the rubbish into the bin.</p> <p>Relevant terminology is occasionally used. The answer occasionally demonstrates substantiated reasoning, but may lack clarity, coherence, focus and logical structure.</p>
0	0	No relevant content.

Possible content:

AO1

- Authority is when a person has the right to give orders, or when they are perceived by others to have the right to do so. In many cultures, people are brought up to obey people in authority. Milgram found that (perceived) authority is an element in whether or not people obey.
- Proximity is how near or far away something or someone is. When we are close to an authority figure we are more likely to obey. Milgram also suggests that proximity to the consequences of our actions increases the ‘moral strain’ which leads to an increase in personal responsibility.

AO2

- Nathan is likely to have obeyed the order from the person in the security guard uniform because he perceived them as having authority.
- Nathan is likely to have obeyed the order from the person in the security guard uniform because he was close to him.
- Nathan is likely to have ignored the order to help carry shopping bags because the person did not appear to have authority.
- Nathan is likely to have ignored the order to help carry shopping bags because the person was not close to him.

Credit other relevant content.

NOTE: References to dispositional factors are not relevant content.

NOTE: AO2 may be embedded within the answer for AO1 or vice versa. Both are equally acceptable.

04.1	Name one dispositional factor and one social factor that can influence bystander intervention. <div style="text-align: right;">[2 marks]</div>
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Marks for this question: AO1 – 2 marks

1 mark for naming any **one** of the following dispositional factors (MAX 1):

- Similarity to victim.
- Expertise.

Accept other creditworthy dispositional factors such as personality and morality.

1 mark for naming any **one** of the following social factors (MAX 1):

- Presence of others.
- Cost of helping.

Accept other creditworthy social factors such as culture and proximity.

NOTE: Answers do not need to be written on the matching prompt line in order to be creditworthy.

04.2	Explain how factors that affect bystander behaviour may have stopped Aiden and Reena from offering their help in the described situation. <div style="text-align: right;">[3 marks]</div>
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Marks for this question: AO2 – 3 marks

Up to **3 marks** for an explanation of how factors that affect bystander behaviour may have stopped Aiden **and** Reena from offering their help.

3 marks: a clear and detailed explanation for **both** Aiden **and** Reena's behaviour.

2 marks: a limited explanation.

1 mark: a very limited/muddled explanation.

Possible content:

- Aiden may not have offered to help because he did not feel he had the expertise to know what to do. He said he wished he had taken a first aid course and so he probably thought that someone else with first aid training would be more able to help than he would.
- Reena may not have offered to help because she feels very nervous around people who have been drinking and so for her, the cost of helping may have been too great. She might also have weighed up any possible rewards from helping and decided that they did not outweigh the costs.

Credit other relevant content.

05	Describe and evaluate Adorno's theory of Authoritarian Personality.	[6 marks]
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Marks for this question: AO1 – 3 marks and AO3 – 3 marks

Level	Marks	Description
3 Detailed	5–6	<p>AO1: Relevant knowledge and understanding of Adorno's theory of Authoritarian Personality is accurate with detail.</p> <p>AO3: Analysis and evaluation of Adorno's theory of Authoritarian Personality is effective. Any conclusions drawn are sound and fully expressed.</p> <p>Relevant terminology is used consistently throughout. The answer demonstrates a high level of substantiated reasoning, and is clear, coherent and focused.</p>
2 Clear	3–4	<p>AO1: Relevant knowledge and understanding of Adorno's theory of Authoritarian Personality is present but there are occasional inaccuracies/omissions.</p> <p>AO3: There may be some effective analysis and evaluation of Adorno's theory of Authoritarian Personality. There may be an attempt to draw conclusions.</p> <p>Relevant terminology is occasionally used. The answer occasionally demonstrates substantiated reasoning, but may lack clarity, coherence, focus and logical structure.</p>
1 Basic	1–2	<p>AO1: Knowledge and understanding of Adorno's theory of Authoritarian Personality is present but limited.</p> <p>AO3: Analysis and evaluation of Adorno's theory of Authoritarian Personality is of limited effectiveness or may be absent. Any attempts to draw conclusions are not always successful or present.</p> <p>Relevant terminology may not be used at all or may be muddled.</p>
0	0	No relevant content.

Possible content:

AO1

- Adorno's theory is that some people have a personality that makes them more likely to be obedient. He called this the Authoritarian Personality.
- A person who is very obedient to those in authority, or people with a higher status than them, are likely to have this type of personality.
- People with an Authoritarian Personality are also likely to 'look down' on people they view as having inferior status.
- They are also likely to have 'black and white' thinking.

- Adorno based his theory on research that used a questionnaire (F-scale). He concluded that people who had a harsh upbringing and critical/strict parenting, were more likely to have an Authoritarian Personality.

AO3

- Adorno based his theory on his research using the F-scale. The F-scale has been criticised because it has a response bias/the questions are written in such a way that giving a yes answer is always an authoritarian response. Therefore, Adorno's theory may not be based on research findings that are valid.
- Adorno has not provided proof that an authoritarian personality actually causes high levels of obedience. He has only found a correlation between personality type and obedience. This means that cause and effect cannot be proved.
- Some of the most obedient participants in Milgram's 'electric shock' study did not have the authoritarian/strict upbringing Adorno's theory suggests is a main factor in the development of an Authoritarian Personality.
- Other researchers have found that people with lower educational levels are more obedient. This suggests that other dispositional factors may be important and that personality type is not enough on its own.

Credit other relevant content.

NOTE: Description and/or evaluation of a study with **no** link to the theory should be marked in the Basic Level.

Section B

Language, thought and communication

06	Which of the following is not a function of animal communication? Shade one box.	[1 mark]
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Marks for this question: AO1 – 1 mark

Answer

B (Motivating others)

07.1	Describe the results from Von Frisch’s bee study.	[3 marks]
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Marks for this question: AO1 – 3 marks

Up to 3 marks for a description of the results from Von Frisch’s bee study.

3 marks: a clear and detailed description.

2 marks: a limited description.

1 mark: a very limited/muddled description.

Possible content:

- Von Frisch found that when bees return to the hive, they make different movements depending on how far away from the hive the sugar-water/food source is.
- When it is less than 100 metres from the hive, the bees turn rapidly in circles to the right and then the left (a round dance).
- When the sugar-water/food source is further away, the bees move forward in a straight line, wagging their abdomen from side to side before turning in a circle towards the left. This is followed by the bees moving straight forward again before turning in a circle towards the right (a tail-wagging or waggle dance).
- Von Frisch found that 60% of bees who saw the dances, went to the food source at the distance indicated – suggesting they had understood the message sent by the different movements.

Credit other relevant content.

07.2	Briefly evaluate Von Frisch's bee study.	[3 marks]
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Marks for this question: AO3 – 3 marks

Up to 3 marks for an evaluation of Von Frisch's bee study.

3 marks: a clear and detailed evaluation.

2 marks: a limited evaluation.

1 mark: a very limited/muddled evaluation.

Possible content:

- Von Frisch's bee study demonstrated the complexity of animal communication.
- Bees do not collect sugar-water from glass containers every day. So this is not a test of natural behaviour which means it can be argued that the study lacks ecological validity. However when sugar solution was put onto flowers instead of in glass containers, the bees still behaved in the same way.
- Beehives are not usually glass and this could have changed the bees' natural behaviour. However when research has been done using wooden hives and a video camera, the same results have been found.
- Von Frisch's conclusions may be too simplistic. Researchers have also found that the noise bees make while doing the dances is important and other researchers have suggested that bees also use cognitive maps, based on their memory of landmarks, to find food.
- Other researchers have replicated Von Frisch's study and found the same results. This suggests that the results are trustworthy and that the original study is reliable.

Credit other relevant content.

08	<p>Outline the difference between non-verbal communication and verbal communication.</p> <p>Refer to the conversation above in your answer.</p> <p style="text-align: right;">[3 marks]</p>
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Marks for this question: AO1 – 2 marks and AO2 – 1 mark

AO1

Up to **2 marks** for outlining the difference between non-verbal communication and verbal communication.

2 marks: a clear and accurate outline that goes beyond just giving examples.

1 mark: a limited or muddled outline.

Possible content:

- Non-verbal communication is the sending and receiving of messages without using words.
- Non-verbal communication is the part of communication that does not involve words – like body language, facial expressions, and paralinguistics (for example tone, pitch, volume, and intonation).
- Verbal communication is sending and receiving messages using words.

PLUS

AO2

1 mark for an appropriate reference to the conversation.

Example:

Evan thinks that non-verbal communication is not talking, but in fact any communication using words – including messages on social media, is verbal communication.

Credit other relevant content.

NOTE: AO2 may be embedded within the answer for AO1 or vice versa. Both are equally acceptable.

09	<p>Imagine that you have been asked to conduct a study to investigate the idea that non-verbal behaviour is learned. Use your knowledge of psychology to describe how you would do this.</p> <p>In your answer include:</p> <ul style="list-style-type: none"> • who your target population would be • a description of the procedure you would use and what data you would collect • one ethical consideration you would need to consider and how you would deal with this. <p style="text-align: right;">[6 marks]</p>
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Marks for this question: AO2 – 6 marks

1 mark for an appropriate target population.

PLUS

Up to **3 marks** for a suitable procedure **and** for identifying the data to be collected.

3 marks: a clear and detailed answer that includes a suitable procedure **and** data identification.

2 marks: a limited answer.

1 mark: a very limited/muddled answer.

PLUS

Up to **2 marks** for **one** ethical issue **and** an appropriate way of dealing with it.

2 marks: a clear and accurate answer appropriate to the context of the outlined study.

1 mark: a limited or muddled answer.

Possible content:

Possible ethical issues:

- Respect
- Competence
- Responsibility
- Integrity
- Confidentiality/anonymity
- Informed consent
- Parental consent
- Deception
- Right to withdraw
- Protection from harm.

PLUS

Appropriate ways of dealing with possible ethical issues in the context of the study:

- Do not use the participant's names in any report that is written.
- If participants must be referred to, use a number or a letter.
- explain what the participants will be taking part in and ask if they are happy to do so.
- If the participants are under 16, also ask their parents for permission for them to take part.
- Tell participants as soon as possible if they were lied to in any way about what took place.
- Tell the participants before and during that they can stop taking part at any point. Afterwards tell them they can remove their results.
- Make sure that the risk to participants is no greater than that they face in everyday life.
- After the experiment, explain to the participants what they took part in and why, and how the results will be used.

Credit other relevant content.

NOTE: If the candidate has written about more than one ethical issue and an appropriate way of dealing with it, award marks to the **one** that is clearest and most effective.

10	<p>Briefly describe the fight or flight response and Darwin’s theory of non-verbal communication as evolved and adaptive.</p> <p>Discuss whether or not the fight or flight response can be used to support Darwin’s theory of non-verbal communication. Use your knowledge of both in your answer.</p> <p style="text-align: right;">[9 marks]</p>
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Marks for this question: AO1 – 4 marks and AO3 – 5 marks

Level	Marks	Description
3 Detailed	7–9	<p>AO1: Relevant knowledge and understanding of the fight or flight response and Darwin’s theory of non-verbal communication is accurate with detail.</p> <p>AO3: Analysis and evaluation of whether or not the fight or flight response can be used to support Darwin’s theory of non-verbal communication is effective. Any conclusions drawn are sound and fully expressed.</p> <p>Relevant terminology is used consistently throughout. The answer demonstrates a high level of substantiated reasoning, and is clear, coherent and focused.</p>
2 Clear	4–6	<p>AO1: Relevant knowledge and understanding of the fight or flight response and/or Darwin’s theory of non-verbal communication is present but there are occasional inaccuracies/omissions.</p> <p>AO3: There may be some effective analysis and evaluation of whether or not the fight or flight response can be used to support Darwin’s theory of non-verbal communication. There may be an attempt to draw conclusions.</p> <p>Relevant terminology is occasionally used. The answer occasionally demonstrates substantiated reasoning, but may lack clarity, coherence, focus and logical structure.</p>
1 Basic	1–3	<p>AO1: Knowledge and understanding of the fight or flight response and/or Darwin’s theory of non-verbal communication is present but limited.</p> <p>AO3: Analysis and evaluation of whether or not the fight or flight response can be used to support Darwin’s theory of non-verbal communication is of limited effectiveness or may be absent. Any attempts to draw conclusions are not always successful or present.</p> <p>Relevant terminology may not be used at all or may be muddled.</p>
0	0	No relevant content.

Possible content:

AO1

- The fight or flight response is an automatic response to a real or perceived threat.
 - The autonomic nervous system reacts to a threat by switching from parasympathetic activity to sympathetic activity. Adrenaline is released into the bloodstream.
 - Then a number of changes take place physically – breathing becomes more rapid, heart rate increases so that there is more oxygen in the blood and sweating increases in order to cool down the muscles.
 - Other changes include the pupils dilating and digestion slowing right down.
 - These are all so that people can confront or run away from the threat.
 - After the threat has passed, there is a switch back to parasympathetic activity and the body enters a 'rest and digest' phase.
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- Some of Darwin's key ideas are natural selection and survival of the fittest. He said that organisms that make the best changes in order to fit their situation and environment, are the ones most likely to survive and reproduce.
 - Darwin put forward the idea that non-verbal communication has evolved as a way of expressing emotions.
 - Darwin wrote about the principle of serviceable associated habits. A serviceable behaviour has a purpose.
 - An example of a serviceable behaviour would be when people expose their teeth when they have an angry facial expression. Originally, humans may have used biting as a form of self-defence. So just like many animals, they may have exposed their teeth as a way of saying 'back off'.

AO3

- Darwin suggested that some non-verbal communication is caused by our nervous system. Examples include dilated pupils and an open mouth when we are frightened.
- These are some of the effects of the fight or flight response and as such, could help our survival. Pupil dilation increases how much we can see – allowing us to find the best way to escape and an open mouth increases how much oxygen we can take in – allowing us to run away much faster.
- Medical evidence backs up the idea that our nervous system causes certain actions, such as pupil dilation.
- Some research suggests that at least some non-verbal behaviours are genetic or innate. For example, research into new-born babies showing that some non-verbal behaviours are already present at birth. Other research has found that some facial expressions are seen and recognised in all cultures, including fear.
- The fight or flight response can also be considered to be innate as it is an automatic physical response to a threat and not altered by culture or upbringing.
- Not all non-verbal behaviour helps humans to confront or run from a threat.

Credit other relevant content.

NOTE: Reference to 'the fight or flight response' or 'non-verbal communication as evolved and adaptive' is not by itself enough for 'relevant content' because it is part of the question stem.

Section C

Brain and neuropsychology

11	<p>Which two of the following statements about the James-Lange theory of emotion are correct?</p> <p>Shade two boxes.</p> <p style="text-align: right;">[2 marks]</p>
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Marks for this question: AO1 – 2 marks

Answers

B (The theory does not suggest physiological changes are experienced at the same time as emotions)

D (The theory suggests that our interpretation of physiological changes causes the emotions we experience)

12	<p>From the information, identify two examples of situations where sensory neurons would have been involved and identify two examples of situations where motor neurons would have been involved.</p> <p>Write your answers in the correct boxes.</p> <p style="text-align: right;">[4 marks]</p>
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Marks for this question: AO2 – 4 marks

1 mark for each correct response for sensory neurons (MAX 2):

1 mark for each correct response for motor neurons (MAX 2):

Sensory neuron examples	Motor neuron examples
Tasting candy floss	Chewing/swallowing candy floss/popcorn
Smelling popcorn	Screaming
Hearing screams	Waving / moving arms

Credit other relevant examples.

NOTE: If the candidate has written more than one answer within a box, **only** mark the **first one**.

13	<p>This outline of the brain shows the temporal lobe. This is one of four lobes in the brain.</p> <p>On the outline, sketch the location of the three other lobes. Label these three lobes and the cerebellum.</p> <p style="text-align: right;">[3 marks]</p>
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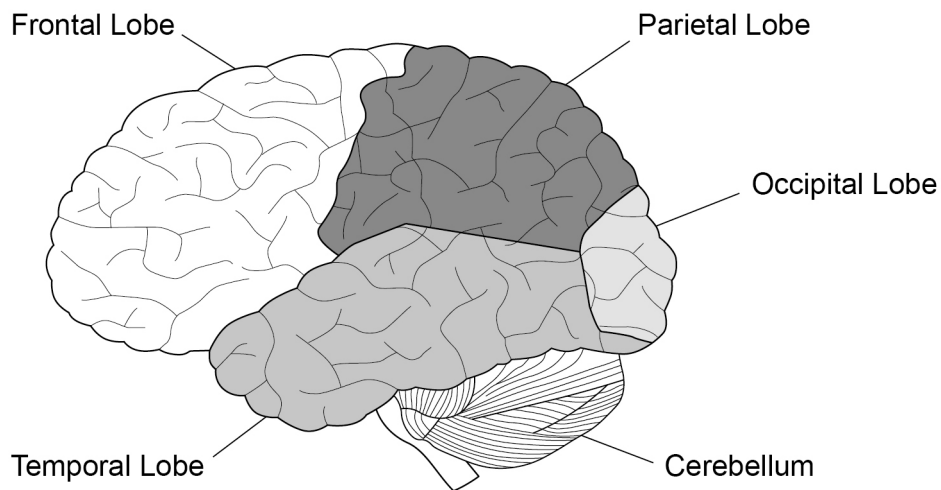
Marks for this question: AO1 – 3 marks

Up to **3 marks** for sketching and labelling the three other lobes and the cerebellum.

3 marks: for all three lobes **and** the cerebellum.

2 marks: for two lobes **and** the cerebellum **OR** all three lobes.

1 mark: for one lobe **and** the cerebellum **OR** two lobes.



NOTE: The command term 'sketch' only requires the location of the lobes to be 'roughly' drawn. For clearly inaccurate/missing sketching (MAX 2 marks).

14	<p>Briefly explain localisation of function in the brain.</p> <p>Refer to the article in your answer.</p> <p style="text-align: right;">[3 marks]</p>
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Marks for this question: AO1 – 2 marks and AO2 – 1 mark

Up to **3 marks** for an explanation of localisation of function in the brain and an appropriate reference to the article.

3 marks: a clear and accurate answer that includes an explanation **and** an appropriate reference to the article.

2 marks a limited answer.

1 mark: a very limited or muddled answer.

Possible content:

AO1

- Certain cognitive functions / behavioural processes are carried out by specific areas of the brain.
- Localised functions include sensations, movement, touch, vision, hearing, and language.

AO2

- Patient M's motor area seems fine because he can still walk.
- Patient M's language area seems fine because he can still talk.
- Patient M's somatosensory area/ parietal lobe may be damaged because he can feel hardly any sensation in his hands and experiences very little pain.

Credit other relevant content.

NOTE: If answer is **ONLY** an appropriate reference to the article (MAX 1).

NOTE: AO2 may be embedded within the answer for AO1 or vice versa. Both are equally acceptable.

15.1	Briefly describe Penfield's study of the interpretive cortex.	[3 marks]
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Marks for this question: AO1 – 3 marks

Up to **3 marks** for a brief description of Penfield's study of the interpretive cortex.

3 marks: a clear and detailed description.

2 marks: a limited description.

1 mark: a very limited/muddled description.

Possible content:

- Penfield carried out case studies into the brain function of patients while they were having brain surgery and while they were conscious.
- The neurosurgeon applied gentle electrical stimulation to different areas of the cortex and asked the patients to describe what happened to them.
- When the temporal lobe was stimulated, some patients described a vivid recall of memories. Other patients experienced feelings such as fear. Others heard different things – one patient could hear a piano playing and a different patient heard an orchestra playing.
- When he had stimulated the motor and sensory areas of the brain, patients made different physical actions, or they believed that someone had touched them.

Credit other relevant content.

15.2	Evaluate Penfield’s study of the interpretive cortex.	[5 marks]
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Marks for this question: AO3 – 5 marks

Level	Marks	Description
3 Detailed	4–5	<p>Analysis and evaluation of Penfield’s study of the interpretive cortex is effective. Any conclusions drawn are sound and fully expressed.</p> <p>Relevant terminology is used consistently throughout. The answer demonstrates a high level of substantiated reasoning, and is clear, coherent and focused.</p>
2 Clear	2–3	<p>There may be some effective analysis and evaluation of Penfield’s study of the interpretive cortex. There may be an attempt to draw conclusions.</p> <p>Relevant terminology is occasionally used. The answer occasionally demonstrates substantiated reasoning, but may lack clarity, coherence, focus and logical structure.</p>
1 Basic	1	<p>Analysis and evaluation of Penfield’s study of the interpretive cortex is of limited effectiveness or may be absent. Any attempts to draw conclusions are not always successful or present.</p> <p>Relevant terminology may not be used at all or may be muddled.</p>
0	0	No relevant content.

Possible content:

- The medical procedure used was very precise and detailed.
- The participants were all having brain surgery because they were severely epileptic. This is a very unique sample, so they may not have been representative of the wider population.
- The findings were different for each participant, so it is hard to draw conclusions.
- The participants may have found it difficult to describe their experiences.
- While vivid recall of memories did occur, it was seen in less than five percent of Penfield’s participants.
- Penfield’s work provided a lot of information about localisation of function in the brain and contributed to the mapping of the brain.
- Penfield’s later research did not support his earlier findings.

Credit other relevant content.

16	<p>You have been asked to compare the different scanning techniques used to identify brain functioning. To do this, you are going to interview people who use scanning techniques to carry out their jobs.</p> <p>You need to:</p> <ul style="list-style-type: none"> • write one appropriate question that you could ask your participants • explain whether the data you collect from the interview will be quantitative or qualitative and why this type of data would be suitable • identify one ethical issue you would need to consider and how you would deal with this issue. <p style="text-align: right;">[5 marks]</p>
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Marks for this question: AO2 – 5 marks

1 mark for an appropriate question.

Examples:

- Which scanning techniques do you use to carry out your job?
- Do you find a particular scanning technique easier to use?

PLUS

1 mark for explaining whether the data collected from the interview will be quantitative or qualitative **and**

1 mark for explaining why this would be suitable.

Example:

- My data will be quantitative because it is numeric. (I will count the number of people who give each answer to my closed questions). This is suitable because it allows easy comparison between the different scanning techniques (2 marks).

NOTE: Answers that simply **state** that the data is quantitative or qualitative are not creditworthy.

PLUS

Up to **2 marks** for one ethical issue and an appropriate way of dealing with it.

2 marks: a clear and accurate answer appropriate to the context of the outlined study.

1 mark: a limited or muddled answer.

Possible content:

Possible ethical issues:

- Respect
- Competence
- Responsibility
- Integrity
- Confidentiality/anonymity

- Informed consent
- Deception
- Right to withdraw
- Protection from harm.

PLUS

Appropriate ways of dealing with possible ethical issues in the context of the study

- Do not use the participants' names in any report that is written.
- If participants must be referred to, use a number or a letter.
- Explain what the participants will be taking part in and ask if they are happy to do so.
- Tell participants as soon as possible if they were lied to in any way about what took place.
- Tell the participants before and during that they can stop taking part at any point. Afterwards tell them they can remove their results.
- Make sure that the risk to participants is no greater than that they face in everyday life.
- After the study, explain to the participants what they took part in and why, and how the results will be used.

Credit other relevant content.

Section D

Psychological problems

17.1	<p>Research suggests that nurture plays a role in people experiencing depression.</p> <p>Which of the following is not a way that nurture can influence depression?</p> <p>Shade one box only.</p> <p style="text-align: right;">[1 mark]</p>
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Marks for this question: AO1 – 1 mark

Answer

C (Having certain hereditary factors)

17.2	<p>Briefly evaluate the theory that nurture influences depression.</p> <p style="text-align: right;">[3 marks]</p>
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Marks for this question: AO3 – 3 marks

Up to **3 marks** for a brief evaluation of the theory that nurture influences depression.

3 marks: a clear and detailed evaluation.

2 marks: a limited evaluation.

1 mark: a very limited/muddled evaluation.

Possible content:

- There is support from research into learned helplessness that shows the negative effect of certain thinking patterns.
- Research into negative schemas/attributions has led to effective treatments for mental health disorders like depression through helping people to identify and challenge their negative patterns of thinking (CBT).
- There is evidence to show that nature/biological explanations for depression (eg chemical imbalances, genetics) are also part of the reason that people experience depression.

Credit other relevant content.

18	<p>Explain what is meant in psychology by ‘mental health’.</p> <p>Refer to the conversation in your answer.</p> <p style="text-align: right;">[3 marks]</p>
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Marks for this question: AO1 – 2 marks and AO2 – 1 mark

AO1

Up to **2 marks** for an explanation of what is meant by mental health.

2 marks: a clear and accurate explanation that goes beyond just listing characteristics.

1 mark: a limited or muddled explanation.

0 marks: an inaccurate answer **OR** just listing characteristics in the stem.

Possible content:

- An individual’s emotional and psychological wellbeing.
- Enables people to cope and function in everyday life and society.
- How a person feels about themselves and how they deal with life.
- Characteristics of mental health **that are not mentioned in the stem** =
 - positive engagement with / functioning as part of society
 - effective coping with challenges
 - not being overcome by difficult feelings
 - having good relationships with others
 - being able to cope with stresses and demands of everyday life
 - coping with disappointments.

PLUS

AO2

1 mark for an appropriate reference to the article.

Example:

- Our mental health can help us to cope and function, but Anne-Marie says she is finding it harder to cope.

Credit other relevant content.

NOTE: AO1 answers that describe mental health as negative / a problem / an issue, are unlikely to be creditworthy.

NOTE: Where the words ‘mental’ or ‘health’ are used as part of the answer and are **not** defined/explained, (eg ‘mental health is someone’s mental wellbeing’), this will reduce the clarity of the answer.

NOTE: The AO2 may be embedded in the AO1 or vice versa. Both are equally acceptable.

19.1	Explain how researchers would select a random sample from this target population. [3 marks]
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Marks for this question: AO2 – 3 marks

Up to **3 marks** for an explanation of how researchers would select a random sample from this target population.

3 marks: a clear and detailed explanation.

2 marks: a limited explanation.

1 mark: a very limited/muddled explanation.

Possible content:

- Obtain a list of all the patients from the Good Health Medical Centre (in London who had been diagnosed with unipolar depression within the past 6 months and who were aged between 25 and 42 years of age).
- Split the list into individual names.
- Use a method of random selection, (eg selecting names from a hat).
- Select 150 names.

Credit other relevant methods of selecting a random sample.

NOTE: Generic answers that do not refer in any way to the described study (ie no mention of words such as 'Medical Centre', 'patients' or '150') are to be considered very limited.

19.2	Identify one strength and one weakness of random sampling. [2 marks]
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Marks for this question: AO3 – 2 marks

1 mark for identifying **one** strength of random sampling.

Possible content:

- No researcher bias (because the researcher does not choose who takes part).
- Everyone in the target population has an equal chance of being chosen.
- The sample is likely to be more representative.

PLUS

1 mark for identifying **one** weakness of random sampling.

Possible content:

- Takes more time / effort / resources / than some other sampling methods.
- Some people who are chosen may not be willing to participate (and this decreases the sample size).

Accept other creditworthy answers such as those that compare random sampling with other methods.

NOTE: If the candidate has written about more than **one** strength and/or weakness, award marks to the answers that are clearest and most accurate.

19.3	Complete Table 2 using the information from the bar graph.	[2 marks]
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Marks for this question: AO2 – 2 marks

1 mark for each correct number added to the correct part of the table (MAX 2).

A lot = **35**

Not at all = **40**

Level of improvement to mood:	A lot	A little	Not at all
Total number of participants:	35	75	40

19.4	Calculate the percentage of participants who stated that their mood improved ‘ a little ’. Show your workings.	[2 marks]
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Marks for this question: AO2 – 2 marks

2 marks for the correct answer.

50

1 mark for correct workings but incorrect/no answer.

$75/150 \times 100$

NOTE: Credit may be given for correct answers written in the workings box – not just on the answer line.

20	<p>Aversion therapy and self-management programmes are both used as interventions for addiction.</p> <p>Explain how aversion therapy is used as an intervention for addiction.</p> <p>Use your knowledge of both the reductionist and the holistic perspectives to compare aversion therapy with self-management programmes.</p> <p style="text-align: right;">[9 marks]</p>
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Marks for this question: AO1 – 4 marks and AO3 – 5 marks

Level	Marks	Description
3 Detailed	7–9	<p>AO1: Relevant knowledge and understanding of aversion therapy as an intervention for addiction is accurate with detail.</p> <p>AO3: Analysis and evaluation of aversion therapy and self-management programmes from the reductionist and the holistic perspectives is effective. Any conclusions drawn are sound and fully expressed.</p> <p>Relevant terminology is used consistently throughout. The answer demonstrates a high level of substantiated reasoning, and is clear, coherent and focused.</p>
2 Clear	4–6	<p>AO1: Relevant knowledge and understanding of aversion therapy as an intervention for addiction is present but there are occasional inaccuracies/omissions.</p> <p>AO3: There may be some effective analysis and evaluation of aversion therapy and/or self-management programmes from the reductionist and/or the holistic perspectives. There may be an attempt to draw conclusions.</p> <p>Relevant terminology is occasionally used. The answer occasionally demonstrates substantiated reasoning, but may lack clarity, coherence, focus and logical structure.</p>
1 Basic	1–3	<p>AO1: Knowledge and understanding of aversion therapy as an intervention for addiction is present but limited.</p> <p>AO3: Analysis and evaluation of aversion therapy and/or self-management programmes from the reductionist and/or the holistic perspectives is of limited effectiveness or may be absent. Any attempts to draw conclusions are not always successful or present.</p> <p>Relevant terminology may not be used at all or may be muddled.</p>
0	0	No relevant content.

Possible content:

AO1

- Tries to stop people from using the substance they are addicted to by causing them to experience something unpleasant when they carry out the unwanted behaviour.
- This results in a link being made between the unwanted behaviour and the unpleasant experience.
- Based on principles of classical conditioning.
- One example of this is when an alcoholic is given an emetic (a medicine that causes vomiting) (eg Antabuse) to take whenever they have an alcoholic drink.
- Electrical aversion therapy may also be used. This involves an addict being given a safe but painful shock while they do the unwanted behaviour (eg gambling).

AO3

- The reductionist perspective is the belief that something (eg human behaviour) is only fully able to be understood by simplifying it to its most fundamental and basic parts.
- The holistic perspective is the belief that all the parts of something (eg human behaviour) are connected and are only fully able to be understood by looking at the 'bigger picture' or referring to the whole.
- By itself, aversion therapy is reductionist because it only focuses on changing the link between the unwanted behaviour and pleasure. However if it is combined with other treatments or therapies (such as CBT), it becomes more holistic.
- Self-management programmes can be viewed as holistic because they help people to work on the 'bigger picture'. This is done by not only dealing with someone's urge to use a substance, but also by addressing other factors that are often linked to addiction, such as environmental or social factors. They also help people to address things from their past like trauma or loss.
- Self-management programmes tend to be more holistic than aversion therapy.

Credit other relevant content.

NOTE: Description of self-management programmes / evaluation of aversion therapy / evaluation of self-management programmes are all unlikely to be creditworthy.