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**GCSE  
PSYCHOLOGY  
8182/2**

Paper 2 Social Context and Behaviour

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**Mark scheme**

June 2020

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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.

Further copies of this mark scheme are available from [aqa.org.uk](http://aqa.org.uk).

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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.

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**

**Social influence**

<b>01</b>	<p>Which <b>two</b> of the following statements about conformity are correct?</p> <p>Shade <b>two</b> boxes.</p> <p style="text-align: right;"><b>[2 marks]</b></p>
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**Marks for this question: AO1 – 2 marks**

C, E

<b>02.1</b>	<p>You have been asked to design an experiment to investigate the effect of anonymity on conformity.</p> <p>In your answer outline the following information:</p> <ul style="list-style-type: none"> <li>• what your independent <b>and</b> dependent variables would be</li> <li>• one thing you would do to standardise your procedure <b>and</b> why this would benefit your research</li> <li>• the results you would expect to find from your experiment.</li> </ul> <p style="text-align: right;"><b>[6 marks]</b></p>
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**Marks for this question: AO2 – 4 marks, AO3 – 2 marks**

**AO2**

Up to **2 marks** for appropriate conditions of the independent variable and an appropriate dependent variable.

**2 marks:** a clear and accurate outline with at least two conditions of the IV and a DV

**1 mark:** a limited or muddled outline.

**PLUS**

Up to **2 marks** for a standardised procedure and an appropriate benefit for this procedure.

**2 marks:** a clear and accurate outline with both elements addressed.

**1 mark:** a limited or muddled outline.

**Possible content:**

Standardised procedures

- standardised instructions
- all participants tested in same environment (except when this is IV)
- all participants should be given same information during briefing and debriefing.

Benefits of standardised procedures

- It helps to make sure that only the IV is affecting DV.
- It limits extraneous variables.
- It means cause and effect can be demonstrated.

- It means research can be replicated.
- It makes findings more reliable.

Credit other relevant content.

**PLUS**

**AO3**

Up to **2 marks** for a description of the expected results.

**2 marks:** a clear and accurate description with at least two conditions of the IV.

**1 mark:** a limited or muddled description.

<b>02.2</b>	<p>When carrying out the experiment you have outlined in your answer to Question <b>02.1</b>, you should consider ethical issues.</p> <p>Identify <b>two</b> ethical issues that you would need to consider.</p> <p>Suggest <b>one</b> appropriate way of dealing with <b>each</b> of the issues you identify.</p> <p style="text-align: right;"><b>[4 marks]</b></p>
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**Marks for this question: AO2 – 4 marks**

Up to **2 marks** for **each** ethical issue and 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
- debrief.

**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.

<b>03.1</b>	<p>Which of the following research methods is being used in this study on bystander behaviour?</p> <p>Shade <b>one</b> box.</p> <p>A. Case study B. Field experiment C. Interview D. Natural experiment</p> <p style="text-align: right;"><b>[1 mark]</b></p>
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**Marks for this question: AO2 – 1 mark**

B

<b>03.2</b>	<p>When data is plotted on a graph and makes the shape seen in <b>Figure 1</b>, what name is given to it?</p> <p style="text-align: right;"><b>[1 mark]</b></p>
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**Marks for this question: AO2 – 1 mark**

**1 mark** for any **one** of:

- normal distribution
- a normal distribution curve
- a normal probability curve
- a normal curve
- a bell curve
- a Gaussian curve
- Gaussian distribution.

<b>03.3</b>	<p>Name <b>two</b> other descriptive statistics that would have a very similar value to the mean in <b>Figure 1</b>.</p> <p style="text-align: right;"><b>[2 marks]</b></p>
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**Marks for this question: AO2 – 2 marks**

**1 mark each** for the following:

- mode
- median

**NOTE:** If the candidate has written more than **one** answer on a numbered line, only mark the **first one**.

**NOTE:** Do **not** award any marks for mean or average.

<b>04</b>	Describe <b>and</b> evaluate Milgram’s Agency theory of obedience.	<b>[9 marks]</b>
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**Marks for this question: AO1 – 4 marks and AO3 – 5 marks**

Level	Marks	Description
<b>3 Detailed</b>	<b>7–9</b>	<p>AO1: Relevant knowledge and understanding of Milgram’s Agency theory is accurate with detail.</p> <p>AO3: Analysis and evaluation of Milgram’s Agency theory 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, is clear, coherent and focused.</p>
<b>2 Clear</b>	<b>4–6</b>	<p>AO1: Relevant knowledge and understanding of Milgram’s Agency theory is present but there are occasional inaccuracies/omissions.</p> <p>AO3: There may be some effective analysis and evaluation of Milgram’s Agency theory. There may be an attempt to draw conclusions.</p> <p>Relevant terminology is usually used. The answer frequently demonstrates substantiated reasoning, and is clear, generally coherent and focused although structure may lack some logic.</p>
<b>1 Basic</b>	<b>1–3</b>	<p>AO1: Knowledge and understanding of Milgram’s Agency theory is present but limited.</p> <p>AO3: Analysis and evaluation of Milgram’s Agency theory is of limited effectiveness or may be absent. Any attempts to draw conclusions are not always successful or present.</p> <p>Relevant terminology is occasionally used. The answer occasionally demonstrates substantiated reasoning, but may lack clarity, coherence, focus and logical structure.</p>
<b>0</b>	<b>0</b>	No relevant content.

**Possible content:**

**AO1**

- We are more likely to obey orders when we are in an agentic state/when we believe we are acting on behalf of an authority figure.
- Because we believe the authority figure will take on responsibility for our actions, we no longer feel responsible.
- When someone we believe to be a figure of authority gives us an order, we go from an autonomous state to an agentic state (an agentic shift).

Credit other relevant description.

**NOTE:** answers that only describe the method and results from Milgram's study are not creditworthy. However, conclusions could be made creditworthy.

**AO3**

- There is real world evidence to support Milgram's theory – for example the Nazi guards in concentration camps during the Second World War.
- There is research evidence to support Milgram's theory – for example Milgram's 'electric shock' study and Thomas, Blass and Schmitt (2000).
- Theory doesn't fully explain why some people are not as obedient as others. In Milgram's study – only 65% of his participants were willing to give the fatal 'electric shock' to another person. This may mean that some people are more likely to enter the agentic state than others.
- Milgram only addresses social factors that may affect obedience, but other psychologists (eg Adorno) think dispositional factors such as personality are very important.
- The use of appropriate supporting or contradictory evidence/theories can be credited.

Credit other relevant evaluation.

**NOTE:** evaluation of Milgram's study with no link to the theory (max 1 mark).



**Section B**

**Language, thought and communication**

<b>05.1</b>	<p>Which is the correct ratio of time taken by non-English speaking participants to time taken by English speaking participants?</p> <p>Shade <b>one</b> box.</p> <p>A. 1:5 B. 2:5 C. 3:5 D. 4:5</p> <p style="text-align: right;"><b>[1 mark]</b></p>
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**Marks for this question: AO2 – 1 mark**

C

<b>05.2</b>	<p>Identify <b>one</b> conclusion about the participants' recognition of colours that the researcher could draw from his results.</p> <p>Use the data in <b>Table 1</b> to explain your answer.</p> <p>How can this conclusion be explained using the Sapir-Whorf hypothesis about thinking and language?</p> <p style="text-align: right;"><b>[6 marks]</b></p>
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**Marks for this question: AO2 – 2 and AO3 – 4**

**AO3**

**1 mark** for identifying an appropriate conclusion about the participants' recognition of colours.

**Example:**

- a conclusion that the researcher could draw from this is that it was easier for the non-English speakers to recognise the shades of green as light or dark.

**PLUS**

**AO2**

Up to **2 marks** for an explanation of the conclusion using the data in Table 1.

**2 marks:** a clear and accurate explanation.

**1 mark:** a limited or muddled explanation.

**Possible content:**

- The data in Table 1 shows that the 10 English speaking participants took 500 seconds to give a correct answer but the 10 non-English speakers only took 300 seconds.

- This means that the participants whose native language includes words that mean ‘light shade of green’ and ‘dark shade of green’, took less time to correctly recognise the shades of green as light or dark.

**PLUS**

**AO3**

Up to **3 marks** for an explanation of the conclusion using one theory of language and thought.

**3 marks:** a clear and detailed explanation.

**2 marks:** a limited explanation.

**1 mark:** a very limited/ muddled explanation.

**Possible content:**

- The Sapir-Whorf hypothesis claims that thinking depends on language. This means that people’s thoughts and behaviours are affected by the language they speak.
- The conclusion that it was easier for the non-English speakers to recognise the shades of green as light or dark supports this theory because when the participants’ language meant they were more used to thinking about green as having light and dark shades, they were almost twice as fast to give a correct answer.
- If thinking does not depend on language, it is unlikely that there would be such a big difference in the results.

Credit other relevant content.

<b>06</b>	Name <b>two</b> properties of human communication that are <b>not</b> present in animal communication <b>and</b> give an example of each property.  <b>[4 marks]</b>
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**Marks for this question: AO1 – 2 marks and AO2 – 2 marks**

**AO1**

**1 mark each** for any **two** of the following properties (MAX 2):

- plan ahead
- discuss future events
- creativity
- displacement
- ambiguity
- variety
- arbitrariness
- discreteness
- duality of patterning
- productivity
- semanticity
- reflexivity
- cultural transmission
- multiple channels.

**PLUS**

**AO2**

**1 mark** for each relevant example (MAX 2):

**Examples:**

- deciding with friends where you want to go and eat after you see a movie (plan ahead)
- talking about what you and your friends might do tomorrow after school (discuss future events).

Credit other relevant content.

**NOTE:** AO1 answer can be embedded within the body of the answer.

<b>07.1</b>	<p>In the conversation, eye contact has been affected by Rosie wearing sunglasses.</p> <p>What is meant by eye contact?</p> <p style="text-align: right;"><b>[1 mark]</b></p>
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**Marks for this question: AO1 – 1 mark**

When two people are looking at each other's eyes at the same time.

<b>07.2</b>	<p>Identify <b>two</b> functions of eye contact that could have been affected by Rosie wearing sunglasses.</p> <p>Use the conversation between Aaron and Rosie to explain <b>at least one</b> of the functions of eye contact that you have identified.</p> <p style="text-align: right;"><b>[4 marks]</b></p>
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**Marks for this question: AO1 – 2 marks and AO2 – 2 marks**

**AO1**

**1 mark each** for any **two** of the following functions of eye contact (MAX 2):

- regulating the flow of conversation
- expressing emotions
- signalling attraction.

Accept other creditworthy answers such as it shows that you are paying attention to what someone is saying.

**NOTE:** To be creditworthy, the identified functions do not need to be specifically seen to be affected in the conversation.

**PLUS**

**AO2**

Up to **2 marks** for an explanation of **at least one** identified function of eye contact that uses the conversation.

**2 marks:** one clear and accurate explanation OR more than one explanation with less detail.

**1 mark:** a limited or muddled explanation(s).

**Possible content:**

- Rosie’s glasses stop Aaron from seeing her eyes and this stops the conversation from flowing because he doesn’t know when it is his turn to speak. That’s why he pauses and um’s.
- Aaron found it hard to work out how Rosie was feeling because he couldn’t see the emotion being expressed in her eyes. This meant that Rosie’s eyes were not giving feedback about her emotional state.
- Because of the sunglasses, Aaron couldn’t get feedback about Rosie’s level of interest or emotional state and this meant that the conversation did not flow smoothly and that’s why he pauses and um’s.

Credit other relevant content.

**NOTE:** AO1 answer can be embedded within the body of the answer.

**NOTE:** Do **not** credit explanations that concern a function of eye contact not previously identified, or that do not use the conversation.

<b>08</b>	<p>A friend of yours is going to have an interview for a summer holiday job and asks for your advice about body language.</p> <p>Using your knowledge of psychology, suggest an appropriate posture for your friend to use during the interview. Justify your answer.</p> <p style="text-align: right;"><b>[3 marks]</b></p>
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**Marks for this question: AO2 – 1 mark and AO3 – 2 marks**

**AO2**

**1 mark** for any **one** of the following:

- open posture
- postural echo/ mirroring/ congruence
- confident/ assertive posture

**PLUS**

**AO3**

Up to **2 marks** for a justification of the suggested posture.

**2 marks:** a clear and accurate justification.

**1 mark:** a limited or muddled justification.

**Possible content:**

- Research suggests that people who use an open posture will be seen as being friendlier/more agreeable/more approachable. Therefore using an open posture in a job interview could help increase the chances of people getting the job.
- Research suggests that people who use postural echo will be seen as being friendlier/on ‘same wavelength’. Therefore using postural echo in a job interview could help increase the chances of people getting the job.

Credit other relevant content.

<b>09</b>	Describe <b>and</b> evaluate Darwin’s evolutionary theory of non-verbal communication. <b>[6 marks]</b>
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**Marks for this question: AO1 – 3 marks and AO3 – 3**

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

**Possible content:**

**AO1**

- 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.
- In his book, *The Expression of the Emotions in Man and Animals* (1872), 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 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'. A serviceable associated habit happens when behaviour regularly occurs when we feel a certain way or in certain situations (such as feeling angry and wanting to be left alone).
- Darwin also suggested that some non-verbal communication is caused by our nervous system. Examples include dilated pupils and an open mouth when we are frightened. They are some of the effects of the fight or flight response and 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.

**AO3**

- Some research suggests that at least some non-verbal behaviours are genetic or innate – such as studies that show that emotions such as anger and happiness are linked with the same facial expressions in all cultures.
- Medical evidence backs up the idea that our nervous system causes certain actions, such as pupil dilation.
- Research into new born babies shows that some non-verbal behaviours are already present at birth.
- Research into people born with a sensory deprivation (for example being blind) shows that some non-verbal behaviours are present even though people haven't been able to experience others making them.
- However, Social Learning theory suggests that some non-verbal behaviours are learned through observing and copying others. This means that they can be affected by the culture we grow up in (ie Yuki's study of emoticons).
- Other behaviours may be both innate and learned. For example when we are born, we can already cry and laugh but as we grow up, we can learn how to control these behaviours.
- Not all non-verbal behaviour helps humans to survive or reproduce – for example the use of gestures.

Credit other relevant content.

**Section C**

**Brain and neuropsychology**

<b>10</b>	Identify each of the divisions by placing the correct letter in the appropriate box in <b>Table 2</b> . <span style="float: right;"><b>[3 marks]</b></span>
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**Marks for this question: AO1 – 3 marks**

Name of the division of the human nervous system	Letter given in Figure 2
The autonomic nervous system	<b>C</b>
The central nervous system	<b>A</b>
The peripheral nervous system	<b>B</b>
The somatic nervous system	<b>D</b>

For one correct answer award 1 mark.  
 For two correct answers award 2 marks.  
 For three correct answers award 3 marks.  
 For four correct answers award **also** 3 marks.

**NOTE:** Where the same letter is used more than once, award **NO** marks for this letter.

<b>11</b>	Evaluate the James-Lange theory of emotion. <span style="float: right;"><b>[4 marks]</b></span>
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**Marks for this question: AO3 – 4 marks**

Level	Marks	Description
<b>2 Clear</b>	<b>3–4</b>	Analysis and evaluation of the James-Lange theory of emotion 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.
<b>1 Basic</b>	<b>1–2</b>	Analysis and evaluation of the James-Lange theory of emotion 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.
<b>0</b>	<b>0</b>	No relevant content

**Possible content:**

- Real life examples back up the theory – for example phobias and panic disorders.
- Other researchers have challenged the theory. For example, Cannon-Bard claim that people actually experience emotions at the same time as the related physiological arousal.
- The James-Lange theory is not based on any research findings from experiments. James and Lange relied on correlational research and clinical findings, such as observations by doctors, to develop their claims. This may mean that their theory lacks validity.
- It has been suggested that the theory can only be correct if there is a separate and unique pattern of physiological arousal for every different emotion we experience. There is no research to suggest that this is actually the case.
- Schachter and Singer’s two-factor theory of emotion views the James-Lange theory as accurate but sees it as too simplistic. They say there is also a cognitive element involved as we use social cues present in order to decide what physiological arousal may mean in different situations.
- According to the James-Lange theory, physiological responses should be necessary to experience emotion, but researchers have shown that people with muscle paralysis and a lack of sensation can still experience emotions.

Credit other relevant content.

NOTE: Answers that are only generic evaluations are considered to be level 1 Basic.

<b>12</b>	<p>Neurons are nerve cells that carry messages.</p> <p>Explain the specific function of a sensory neuron.</p> <p>Give <b>one</b> example of a situation that would cause the sensory neuron to send a message.</p> <p style="text-align: right;"><b>[3 marks]</b></p>
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**Marks for this question: AO1 – 2 marks and AO2 – 1**

**AO1**

Up to **2 marks** for an explanation of the specific function of a sensory neuron.

**2 marks:** a clear and accurate explanation.

**1 mark:** a limited or muddled explanation.

**Possible content:**

- One end of the neuron receives the information from the sense organs (like skin or eyes)/peripheral nervous system (PNS) and the other passes it on to the central nervous system (CNS)/ brain and spinal cord.
- Responsible for changing external stimuli from the environment into internal stimuli. Activated by physical stimuli (such as visible light, sound, heat, physical contact, etc) or by chemical signals (such as smell and taste).

**NOTE:** Do **not** award any marks for just stating knowledge in the question.

**PLUS**



**AO2**

**1 mark** for a relevant example of a situation that would cause the sensory neuron to send a message.

**Examples:**

- touching something hot
- smelling something unpleasant
- tasting something yummy.

Credit other relevant content.

**NOTE:** If the candidate has written more than one example, **only** mark the **first one**.

<b>13</b>	Use your knowledge of Hebb's theory of learning and neuronal growth to explain Vijay's behaviour.	<b>[3 marks]</b>
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**Marks for this question: AO2 – 3 marks**

Up to 3 marks for an explanation using Hebb's theory of learning.

**3 marks:** a clear and detailed explanation of Vijay's behaviour.

**2 marks:** a limited explanation of Vijay's behaviour.

**1 mark:** a very limited/ muddled explanation **OR** an answer that does not specifically address Vijay's behaviour.

**Possible content:**

- When Vijay started to learn to drive, he needed to concentrate really hard because he was just starting to develop the neural pathways/synaptic connections needed for these behaviours.
- After doing the same driving behaviours over and over again, the neural pathways/synaptic connections are stronger and more efficient so Vijay can drive almost without thinking.

Credit other relevant content.

<b>14</b>	<p>Describe Penfield’s case study of the interpretive cortex.</p> <p>Evaluate the research method used in this study.</p> <p style="text-align: right;"><b>[9 marks]</b></p>
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**Marks for this question: AO1 – 4 marks and AO3 – 5 marks**

Level	Marks	Description
<b>3 Detailed</b>	<b>7–9</b>	<p>AO1: Relevant knowledge and understanding of Penfield’s study of the interpretive cortex is accurate with detail.</p> <p>AO3: Analysis and evaluation of case studies 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, is clear, coherent and focused.</p>
<b>2 Clear</b>	<b>4–6</b>	<p>AO1: Relevant knowledge and understanding of Penfield’s study of the interpretive cortex is present but there are occasional inaccuracies/omissions.</p> <p>AO3: There may be some effective analysis and evaluation of case studies. There may be an attempt to draw conclusions.</p> <p>Relevant terminology is usually used. The answer frequently demonstrates substantiated reasoning, and is clear, generally coherent and focused although structure may lack some logic.</p>
<b>1 Basic</b>	<b>1–3</b>	<p>AO1: Knowledge and understanding of Penfield’s study of the interpretive cortex is present but limited.</p> <p>AO3: Analysis and evaluation of case studies is of limited effectiveness or may be absent. Any attempts to draw conclusions are not always successful or present.</p> <p>Relevant terminology is occasionally used. The answer occasionally demonstrates substantiated reasoning, but may lack clarity, coherence, focus and logical structure.</p>
<b>0</b>	<b>0</b>	No relevant content

**Possible content:**

**AO1**

- Penfield carried out case studies into the brain function of patients while they were having brain surgery and while they were conscious.
- The doctor applied gentle electrical stimulation to different areas of the cortex and asked the patients to describe what happened to them.
- As a control, the doctor sometimes told the patients that he was stimulating the brain but he actually was not doing so.

- When the temporal lobe was stimulated, some patients described re-living 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.
- In earlier research, Penfield had stimulated the visual cortex and people ‘saw’ different things – like colours, shadows and even balloons floating into the sky.
- 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.
- Penfield concluded that his findings were evidence for the idea of localisation of function and that the temporal lobe must have a strong role in memories.

**AO3**

- The information gathered from a case study cannot be applied to anyone else because it is very specific to the participants involved. For example, the patients in Penfield’s study were having brain surgery because they were severely epileptic. Therefore, they may not have been representative of the wider population.
- There are various ethical issues to consider when carrying out a case study. For example, because the participants are so unique, it may be possible to identify them from any reports of the results and this would break their confidentiality.
- Researchers tend to be more open about what the results may be when carrying out a case study – they don’t have a hypothesis in mind already. This makes unexpected results and new discoveries more likely.
- Case studies are a good way of studying unusual behaviour/phenomena. In doing so, they often help our understanding of what is ‘normal’.

Credit other relevant content.

<b>15</b>	Describe how a PET scan is used to look at brain functioning.	<b>[3 marks]</b>
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**Marks for this question: AO1 – 3 marks**

Up to 3 marks for a description of how a PET scan is used to look at brain functioning.

**3 marks:** a clear and detailed description.

**2 marks:** a limited description.

**1 mark:** a very limited/ muddled description.

**Possible content:**

- PET scans measure metabolic activity in the brain. They monitor a radioactive chemical/ a radiotracer (e.g. glucose) which has been injected into someone’s blood stream.
- Brain cells that are active use more blood/ oxygen/ have a higher metabolism than ones that are inactive, so PET scan can identify the more active parts of the brain. Different levels of activity show up as different colours on the computer screen.

Credit other relevant content.

**Section D**

**Psychological problems**

<b>16</b>	<p>The article gives a number of examples of the effects of significant mental health problems.</p> <p>Identify <b>two</b> examples of effects on individuals and <b>two</b> examples of effects on society that the article refers to.</p> <p>Write your answers in the correct boxes.</p> <p style="text-align: right;"><b>[4 marks]</b></p>
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**Marks for this question: AO2 – 4 marks**

**1 mark** for each correct response for individuals (MAX 2):

**1 mark** for each correct response for society (MAX 2):

<b>Effects on individuals</b>	<b>Effects on society</b>
Negative impact on physical well-being	Increased costs to health care system
More time/money used to attend appointments with doctors and other healthcare professionals	Need for more health care professionals
(Decreased income from) missing work	Decreased productivity
Risk of losing job (due to being less productive/missing work)	Slower economic growth
Increased fear of being victim of crime	Increase in crime rates
Damage caused to relationships	Increased cost of policing

Credit other relevant content.

<b>17</b>	<p>The number of people with significant mental health problems has changed over time.</p> <p>Use your knowledge of psychology to suggest <b>two</b> reasons for this change.</p> <p style="text-align: right;"><b>[2 marks]</b></p>
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**Marks for this question: AO1 – 2 marks**

**AO1**

**1 mark** for each correctly identified reason (MAX 2):

- cultural variations in beliefs about mental health problems

- increased challenges of modern living
- increased (social) isolation in modern lifestyles
- increased recognition of the nature of mental health problems
- lessening of social stigma
- more people seeking help
- increasing economic deprivation

Credit other relevant content.

<b>18.1</b>	<p>Calculate the percentage of participants who said their sleep patterns were affected.</p> <p>Show your workings.</p> <p style="text-align: right;"><b>[2 marks]</b></p>
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**Marks for this question: AO2 – 2 marks**

**2 marks** for the correct answer.

OR

**1 mark** for correct workings only.

$$\frac{28}{50} \times 100$$

$$= 56$$

<b>18.2</b>	<p>'Changes in sleep patterns' is listed in the International Classification of Diseases (ICD) as a symptom of unipolar depression.</p> <p>Identify <b>two other</b> symptoms of unipolar depression listed in the ICD.</p> <p style="text-align: right;"><b>[2 marks]</b></p>
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**Marks for this question: AO1 – 2 marks**

**1 mark** for any of the following (MAX 2):

- low mood
- reduced energy/activity levels/ fatigue
- changes in appetite levels
- decrease in self-confidence
- lack of interest/enjoyment (in activities)
- reduced/difficulty in concentration/focus
- feelings of worthlessness
- excessive or inappropriate guilt
- negative thoughts about the future / feelings of hopelessness
- suicidal thoughts.
- agitation or slowing down of thoughts and movements

**NOTE:** Do **not** award any marks for 'changes in sleep patterns'.

<b>18.3</b>	<p>The researchers used opportunity sampling to select the participants who answered the questionnaire.</p> <p>Explain <b>one</b> weakness of using opportunity sampling in psychological research.</p> <p style="text-align: right;"><b>[2 marks]</b></p>
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**Marks for this question: AO3 – 2 marks**

Up to **2 marks** for an explanation of **one** weakness of using opportunity sampling.

**2 marks:** a clear and accurate explanation.

**1 mark:** a limited or muddled explanation.

**Possible content:**

- The participants often know the researcher or are all chosen for being in the same place at the same time. This means that they may not represent the target population very well and can be seen as a biased sample.
- Because an opportunity sample often results in an unrepresentative sample, generalisation is limited to specific population that the sample was taken from.
- If participants know the researcher, they might try to 'help' the researcher by behaving in the way they think they should. This will make the results of the study less reliable.

Credit other relevant content.

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

<b>19</b>	Briefly evaluate the use of antidepressant medications as an intervention for depression. <b>[3 marks]</b>
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**Marks for this question: AO3 – 3 marks**

Up to 3 marks for an evaluation of the use of antidepressant medications.

**3 marks:** a clear and detailed evaluation.

**2 marks:** a limited evaluation.

**1 mark:** a very limited/ muddled evaluation.

**Possible content:**

- The research suggests that antidepressants seem to be more effective for lessening of severe depressive symptoms than they do for mild depression.
- Although around 50 to 65% of people will experience some lessening of depressive symptoms, 25 to 30% of people will also improve when they take a fake pill, or placebo.
- Antidepressants also have side effects, for example insomnia, dizziness and having more frequent suicidal thoughts. One reason for antidepressants not working is that people stop taking them because of such side effects.
- Just using antidepressants is reductionist because it only concentrates on one aspect.
- Research by Wiles found that when antidepressants were used alongside CBT, people improved more than when they were just given antidepressants.

Credit other relevant content.

<b>20</b>	One characteristic of addiction is dependence.  What is meant by dependence?  <b>[2 marks]</b>
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**Marks for this question: AO1 – 2 marks**

Up to **2 marks** for a definition of dependence.

**2 marks:** a clear and accurate definition.

**1 mark:** a limited or muddled definition.

- Strong need to continue behaviour/substance use because brain/body only works normally when substance/behaviour is present.
- When the behaviour is not repeated or the substance is not present, withdrawal symptoms will occur.

**NOTE:** To be considered clear and accurate, reference to both bullet points must be made.

**NOTE:** Where the words 'dependent', 'depending' or 'depend' are used as part of the answer and are **not** defined/explained, (e.g. 'dependence is when your body depends on a drug'), this will reduce the clarity of the answer.

<b>21</b>	Use your knowledge of theories of addiction to suggest why <b>both</b> David and Georgie started smoking. Use the conversation to explain your answer.  <b>[5 marks]</b>
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**Marks for this question: AO2 – 5 marks**

Level	Marks	Description
<b>3 Detailed</b>	<b>4–5</b>	Clear application of knowledge and understanding of theories of addiction to suggest why <b>both</b> David and Georgie started smoking.  Relevant terminology is used consistently throughout. The answer demonstrates a high level of substantiated reasoning, is clear, coherent and focused.
<b>2 Clear</b>	<b>2–3</b>	Clear application of knowledge and understanding of theories of addiction to suggest why David <b>or</b> Georgie started smoking.  OR  Reasonable application of knowledge and understanding of theories of addiction to suggest why David <b>and/or</b> Georgie started smoking.  Relevant terminology is occasionally used. The answer occasionally demonstrates substantiated reasoning but may lack clarity, coherence, focus and logical structure.
<b>1 Basic</b>	<b>1</b>	Limited or muddled application of knowledge and understanding of theories of addiction to suggest why David <b>and/or</b> Georgie started smoking.  Relevant terminology may not be used at all or may be muddled. The answer lacks clarity, coherence, focus and logical structure.
<b>0</b>	<b>0</b>	No relevant content.

**Possible content:**

- Peer influence is one theory for addiction and research has found that many people who start smoking as teenagers are strongly influenced by seeing others, such as friends, smoking. Georgie said that his/her smoking behaviour was partly influenced by the behaviour of peers (ie 'my best friends').
- Georgie said her/his smoking behaviour was partly influenced by the behaviour of someone he/she looked up to (ie 'my favourite celebrities'). The social learning theory suggests that we are most likely to copy people like celebrities because we identify with them.
- Both Georgie and David may have started smoking in order to fit in. Georgie with his/her friends and David with the members of his family. Social identity theory suggests that we change our behaviour in order to avoid being rejected and to feel that we are part of a group. Research has found that young people are more likely to conform.
- David says that he started smoking because most of his family did. This may mean that it was the social norm in his family and he learnt this behaviour from watching them. This would mean that David's smoking behaviour was influenced by nurture.
- David says that he started smoking because most of his family did. A biological explanation may explain David's behaviour. He may have a genetic vulnerability which means that he is more likely than others to become addicted. Research such as the twin study by Kaij supports the idea that addiction in some people may be the result of hereditary factors. This would mean that David's smoking behaviour was influenced by nature.



Credit other relevant content.

<b>22</b>	<p>Identify <b>one</b> intervention <b>or</b> therapy for addiction that could be viewed as holistic. Explain your answer.</p> <p style="text-align: right;"><b>[3 marks]</b></p>
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**Marks for this question: AO1 – 3 marks**

**1 mark** for any **one** of:

- self-management programme
- self-help groups
- 12 step recovery programme
- talking therapies/counselling/psychotherapy.

Credit other relevant interventions or therapies.

**NOTE:** DO **not** award any marks for combined interventions or therapies – such as Aversion therapy + CBT.

**PLUS**

Up to **2 marks** for an explanation of why the identified intervention **or** therapy could be viewed as holistic.

**2 marks:** a clear and accurate explanation.

**1 mark:** a limited or muddled explanation.

**Possible content:**

- A holistic perspective is one that views all the parts of something (eg human behaviour) as being connected and only able to be fully understood by looking at the 'bigger picture' or referring to the whole.
- Self-management programmes/self-help groups/12 step recovery programme 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.

Credit other relevant content.