Chapter 1: Memory

1.1 What are the processes of memory? (Page 11)

1. Which one of these is a description of storage? (1 mark)
   - A Retrieving information from memory
   - B Holding information in memory
   - C Changing information so that it can be stored
   - B Holding information in memory

2. Identify the three processes of memory. (3 marks)
   - Encoding (input)
   - Storage
   - Retrieval (output)

3. Explain what is meant by the term episodic memory. Give an example of an episodic memory. (2 marks)
   - The memory of personal events and experiences in someone’s life, such as places they have visited and events that have happened.
   - Your first day at school/Where you went on holiday last summer.

4. Explain one difference between semantic memory and procedural memory. (2 marks)
   - Semantic memories can be described to another person because they are easy to put into words, whereas procedural memories are not easy to describe to another person because they are hard to verbalise.
   - Procedural memories are stored using a motor code, semantic memories are stored using a verbal code.
1.2 What are the structures of memory? (Page 15)

1a. Which one of these is a description of duration? (1 mark)
   A  The way information is represented to be stored
   B  How much information can be stored
   C  How long information can be stored for
   •  C  How long information can be stored for

1b. Which one of these best describes the capacity of the short-term store? (1 mark)
   A  About 3 items
   B  About 12 items
   C  About 7 items
   •  C  About 7 items

2. Explain the difference in duration between the short-term store and the long-term store. (2 marks)
   •  The long-term store can hold information for much longer than the short-term store.
   •  The duration of the short-term store is eighteen to thirty seconds.
   •  The duration of the long-term store is unlimited.

3. Describe the results of Murdock’s serial position curve study. (2 marks)
   •  The words at the end of the list were recalled first and also recalled well. The words from
     the beginning of the list were also recalled well.
   •  The words in the middle of the list were not recalled very well.

4. Evaluate the multi-store model of memory. (3 marks)
   •  Murdock’s study and other studies provide evidence for the existence of separate short-
     term and long-term stores in the multi-store model of memory.
   •  Some psychologists now disagree with the idea of separate short-term and long-term
     stores. They see short-term memory as an active part of long-term memory.
   •  Other psychologists believe that it is very simplistic to view memory as having one long-
     term store, and suggest there is more than one type of long-term store (such as episodic,
     semantic and procedural memories).
   •  The multi-store model of memory says that all information has to be rehearsed to enter
     the long-term store, but we know this isn’t true because it is possible to remember things
     that have not been rehearsed.

1.3 Why is memory an active process? (Page 23)

1. What is meant by a false memory? (1 mark)
   •  Remembering something that has not actually happened.

2. Identify one factor, other than context, that has been shown to affect the accuracy of
   memory. (1 mark)
   •  Interference
   •  False memory

3. Describe the results of Bartlett’s ‘War of the Ghosts’ study. (2 marks)
   •  After ten retellings of the story, the passages became much shorter – the story had gone
     from 330 words to 150 words.
   •  There were lots of omissions, for example all mention of ghosts disappeared.
• There were changes to the detail, for example canoes were changed to boats, and paddling was changed to rowing.
• The order of events was changed.

4. Briefly evaluate research into the theory of reconstructive memory. (4 marks)
• Bartlett’s ‘War of the Ghosts’ study focused on the theory of reconstructive memory. Bartlett believed he was testing memory in a meaningful way. Before his research, memory had mainly been tested using meaningless material such as nonsense word lists.
• Bartlett’s study is more relevant to the way we use our memories in everyday life than studies that involve learning word lists. In the real world, we often tell people about what others have said to us, and this will often be passed on.
• Some psychologists disagree that Bartlett’s study tested memory in a meaningful way. They say that the ‘War of the Ghosts’ story is deliberately confusing and not similar to our everyday experiences.
• The written data Bartlett collected is very difficult to score.

Chapter 2: Perception

2.1 What are sensation and perception? (Page 27)

1. Decide whether each of the following statements is true or false.
   a) The information that our sensory organs detect from the world around us is converted into tiny electrical signals. (1 mark)
   b) The information that our sensory organs detect from the world around us is already organised and easily understandable. (1 mark)
   • a) True
   • b) False

2. Using an example, explain the difference between ‘perception’ and ‘sensation’. (4 marks)
   • Sensation is the information that we receive through our senses from the environment.
   • Perception is how we interpret or make sense of the sensory information that we receive.
   • An example of this would be receiving sound waves through the ears, which are then converted into the music we hear in our heads.

2.2 How do we perceive? (Page 30)

1. What are binocular depth cues? (2 marks)
   • A way of detecting depth or distance.
   • Require information received by both eyes in order to work.

2. Identify and explain one monocular depth cue. (3 marks)
   • A way of detecting depth or distance, which will work with just one eye.
   • Height in plane is how high the object appears in the image.
   • Relative size is how large an object appears in an image.
   • Occlusion is when one object seems to cover part of another object.
   • Linear perspective is when straight lines are angled so that they would come together at a point on the horizon.
3. Explain how ‘convergence’ helps us to perceive how far away objects are. (2 marks)
   - Convergence is a form of depth perception which uses how eye muscles focus on images.
   - We focus our eyes differently to see things that are closer to how we focus to see things that are further away.
   - The brain detects these differences in how the muscles are working, and uses it as a cue to determine distance.

2.4 Can you believe what you see? (Page 35)

1. One explanation for visual illusions is size constancy. Explain what is meant by ‘size constancy’ in this context. (1 mark)
   - Understanding that an object is the same size even when information received by the eyes about the object changes.

2. Identify and explain one visual illusion. (3 marks)
   - The Ponzo illusion uses the depth cue of linear perspective. The converging lines give an indication about how near or far away the object inside the lines might be.
   - The Müller-Lyer illusion uses the depth cue of linear perspective. The outward-pointing arrowheads seem to be pushing one line towards us, whereas the inward-pointing arrowheads on the other line suggest it is further away. Because we perceive the line with the outward-pointing arrowheads to be closer, we think it is shorter.
   - Rubin’s vase uses ambiguity (i.e. there are two equally possible explanations). It can look like a vase, or it can look like two faces seen from the side. We can see either the vase or the faces, but not both at the same time. The brain copes with the ambiguity by focusing on one explanation or the other.
   - The Kanizsa triangle is a fiction that our perception has created, by generating an image which fills in the gap to create something plausible. In this illusion, the shape of a triangle is suggested by the shapes around it, even though the triangle is not really there.
   - The Ames room uses size constancy to produce an illusion. It happens because we assume the room is perfectly square like all other rooms, so the people are equally distant in the two back corners of the room. This encourages us to see the people are very different sizes – one very short and the other very tall, because we are aware that people can be very different sizes.

2.5 What is constructive perception? (Page 37)

1. Evaluate Gregory’s constructivist theory of perception. (4 marks)
   - There is a lot of evidence to support the idea that the interpretations we make of the sensations we receive are affected by our past experiences, and that nurture can therefore have an effect on perception. For example, findings from the key studies by Gilchrist and Nesberg, and Bruner and Minturn.
   - Not everyone agrees with the explanations given for the effects of some illusions, for example the Müller-Lyer illusion.
   - Both nature and nurture have an effect on the way the sensations we receive become our perception of the world around us.

2. Explain how perception uses inferences from visual cues and past experience to construct a model of reality. (9 marks)
   - Perception is how we interpret or make sense of the sensory information that we receive.
   - Inference is a conclusion reached on the basis of past experience or knowledge.
• The constructivist theory of perception argues that our past knowledge and experience is essentially the most important thing in making sense of what is around us.
• Gregory said that our perception works by making reasonable guesses about what we see, on the basis of what it is most likely to be.
• These are known as perceptual hypotheses – the ‘most probable’ explanations for the visual information that we are receiving.
• Gregory argued that these hypotheses are generally accurate because the real world offers so much information, and we do not need to look for any other explanations.
• Visual illusions happen because the perceptual system is misusing strategies that usually help it to make sense of the information it is receiving. This means that wrong inferences or guesses are being made about the data.

2.6 What factors affect our perception? (Page 41)

1. Identify a factor that affects perception. (1 mark)
   • Perceptual set.
   • Culture.
   • Motivation.
   • Emotion.
   • Expectation.

2. Outline the method used by Gilchrist and Nesberg in their study of motivation. (3 marks)
   • Laboratory experiment.
   • 26 university students were randomly allocated to be in one of two groups: one which went without food for 20 hours and the other which ate normally.
   • In the experiment, the participants were told that they would see a set of pictures on a screen for 15 seconds. Then the screen would be turned off. After 15 seconds, they were told they would see the pictures again, but they would not look the same (the researchers had changed the brightness of the pictures).
   • The participants were asked to adjust the brightness of the pictures so that it looked the same as the one they had seen before.
   • The pictures were a set of four colour images taken from magazines, showing typical meals: T-bone steaks, fried chicken, hamburgers, and spaghetti.
   • They were tested at the beginning of the study (just after their lunchtime meal), after 6 hours, and again after 20 hours.

3. Describe and evaluate the Bruner and Minturn study of perceptual set. (9 marks)
   • 24 student participants.
   • Letters or numbers were flashed up very quickly.
   • The participants were asked to draw the letter or number as soon as they could recognise it.
   • The test stimulus was a broken ‘B’ that could be seen as either the letter B or as the number 13.
   • Before being shown the test stimulus, participants were shown a series of four letters (L, M, Y and A), a series of numbers (16, 17, 10 and 12), and a series of mixed letters and numbers.
   • The order they were shown the different types of information varied between groups of participants.
   • When they had just seen the series of numbers, most of the participants drew an open figure, like a ‘13’. When they had just seen the series of letters most of the participants
drew a closed figure, like the letter ‘B’. When they had just seen the series of mixed letters and numbers, they produced mixed results.

- The researchers concluded that the participants’ expectations had directly affected how they interpreted the stimulus figure.
- The study was carefully controlled and counterbalanced, so it could be replicated, increasing the reliability of the findings.
- The study showed the importance of human experience and context in perception, challenging the idea that perceptual rules always work the same way.
- There were not very many participants.
- The participants were all volunteers, so their behaviour might not have been representative.
- They might have guessed the purpose of the study, which could have affected the results that were produced.
- The task was not very similar to perception in real life – it lacked ecological validity.

Chapter 3: Development

3.1 How does the brain develop? (Page 51)

1. Which one of the following best describes the brain stem? (1 mark)
   - A  The part of the brain that controls basic functions such as breathing
   - B  The part of the brain involved in coordinating movement and balance
   - C  The outer layer of the brain where higher-level processing takes place

2. Describe the role of the thalamus. (2 marks)
   - It acts like a sensory processing station.
   - It receives messages from the senses and turns them into appropriate behavioural or motor responses.

3. Outline how the role of nurture in brain development can be investigated. (4 marks)
   - Studying newborn babies, investigating the abilities they are born with and the abilities that develop later on.
   - Abilities that develop after birth are believed to be due to nurture.
   - Studying animals. You can investigate the importance of stimulation on brain development by giving one group of animals a stimulating environment and another group a non-stimulating environment.
   - Any differences in brain development are believed to be due to nurture.

3.2 What is Piaget’s theory of cognitive development? (Page 55)

1. Which one of the following is a description of assimilation? (1 mark)
   - A  Dylan holds a big spoon in the same way that he holds a baby spoon
   - B  Dylan has to change his spoon grip to hold a fork
   - A  Dylan holds a big spoon in the same way that he holds a baby spoon
2. Identify and briefly describe the second stage of Piaget’s theory of cognitive development. (3 marks)

- The pre-operational stage.
- Ages 2–7 years.
- Children are egocentric – they cannot see things from another person’s point of view.
- Children have difficulty focusing on more than one aspect of a situation.
- This stage was investigated by Piaget in his three mountains experiment, and by other psychologists (such as Hughes).
- Children lose their egocentric thinking at age 7.

3. Describe one way in which Piaget’s theory of cognitive development could be applied to education. (2 marks)

- Teachers should take a readiness approach. They need to present opportunities for the child to learn new concepts only when they are at the right stage of intellectual development and ready to learn.
- Children should be taught in a child-centred way. The teacher should provide the materials and allow the child to discover the answers to problems for themselves.

3.3 What are the effects of learning on development? (Page 63)

1. Which one of these is a description of a fixed mindset? (1 mark)
   - A  The belief that ability comes from hard work and can be increased
   - B  The belief that ability is genetic and unchanging
   - C  The belief in your own ability to succeed at a task
   - B  The belief that ability is genetic and unchanging

2. Explain the difference between a verbaliser and a visualiser. (2 marks)
   - Verbalisers process information using words. They prefer to learn from written information, and they like to write things down.
   - Visualisers process information using images. They prefer to learn from pictures and diagrams.
   - Verbalisers think using words, visualisers think using pictures.

3. Describe the role of praise in learning. (4 marks)
   - Dweck believes the type of praise a student receives from their teacher affects their mindset.
   - There are two types of praise – person praise and process praise.
   - Students that receive person praise believe their successes and failures are something beyond their control.
   - Students that receive process praise believe their successes and failures are due to the amount of effort they put in.
   - There are studies to support the idea that the type of praise a student receives impacts on their learning.

4. Explain Willingham’s criticism of learning styles. (4 marks)
   - There is no experimental evidence to support the existence of different learning styles.
   - Studies show that teaching students in their preferred learning style has no effect on their exam results.
   - Students may have a better visual or auditory memory, but this does not help in the classroom – students need to remember what things mean, not what they sound or look like.
A student’s ability to store information is more important than how they learned the information.

Students should be taught using the best method for the content being taught.

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### Chapter 4: Research methods

#### 4.1 What is the experimental method? (Page 73)

1. Describe how an experimenter could use repeated measures in a study where participants are all timed sorting cards:
   - in the presence of an audience – Condition A
   - in the absence of an audience – Condition B. (2 marks)
   - Divide the sample into two ‘even’ groups – Group 1 and Group 2 – random allocation may be used.
   - Group 1 sort cards in Condition A then Condition B.
   - Group 2 sort cards in Condition B then Condition A.
   - Card sorting tasks need to be similar/same for Condition A and Condition B.

2. Identify the IV and DV in the experiment outlined in Question 1. (2 marks)
   - IV: whether the audience is present or absent.
   - DV: the time taken to sort cards (in seconds).

3. Identify a possible EV in the experiment outlined in Question 1. Explain how the EV could be controlled. (3 marks)
   - Accept any plausible EV, for example: number of cards to be sorted in each condition, type of cards to be sorted, eyesight of participants, which is then controlled appropriately.

4. Write a suitable hypothesis for the experiment outlined in Question 1. (2 marks)
   - There is a difference in the card sorting times of people when there is an audience present and when there is no audience present. (Accept the null version or directional version of the hypothesis.)

5. The researcher decided to counterbalance the conditions in the study in Question 1. Explain why this is an appropriate standardised procedure for this experiment. (2 marks)
   - This ensures that both conditions of the experiment are undertaken equally first and equally second.
   - Any advantage or not to the order of completing conditions is balanced for both conditions so the possible effects are evened out.

6. Briefly discuss strengths and weaknesses of using the experimental method to investigate the effects of the presence and absence of an audience on a card-sorting task. (6 marks)
   - Control of EVs increases, helping to establish cause and effect.
   - High levels of control and/or standardisation lead to replication.
   - Results are easier to confirm if replicable.
   - High objectivity (e.g. due to random allocation) means fewer opportunities for bias in the experiment.
• Settings can be artificial due to high control, so behaviour may be unrealistic, affecting the ecological validity.
• Participants are aware they are in a study so their behaviour could be affected, again affecting the validity.

4.2 What are sampling methods? (Page 75)

1. A researcher used an opportunity sample to collect participants for his investigation. Identify one problem with this method and explain how it could be overcome. (3 marks)
   • This method relies on the researcher choosing people for the sample who are easy to access and who are often already known to the researcher, so there may be people of a particular personality type in the study.
   • The researcher could use a method that is more random, so that more personality types are likely to be in the sample.
   • Alternative sampling methods, such as random/stratified sampling, can be used to overcome the bias.

2. Outline what is meant by random sampling and give a practical example of how a random sample could be achieved. (4 marks)
   • In random sampling every member of the target population has an equal chance of being selected for the sample.
   • To achieve a random sample, members of the target population need to be identified. Each member could be numbered.
   • A raffle method (e.g. ‘hat’/computer program) could be used to select the required number of participants for the sample.
   • Selection stops when the required number have been drawn and identified.

4.3 What are non-experimental methods? (Page 81)

1. What is a survey?
   • A method used for collecting information from a large number of people.
   • Asking questions – remotely or face-to-face.
   • Using questionnaires or interviews.

2. Distinguish between each of the following:
   a) closed questions and open questions (3 marks)
   b) structured interviews and unstructured interviews. (3 marks)
   • In closed questions the choice of answers is fixed and it is not possible to give further detail.
   • Open questions allow the respondent to give whatever answer they like, and prompt detailed responses.
   • In structured interviews the questions are fixed and in unstructured interviews they are not.
   • The distinction is related to whether something has been fixed or not.

3. Outline one strength and one weakness of conducting a survey using questionnaires. (4 marks)
   • It is an opportunity to gain large amounts of data quickly.
   • It can save time as it does not need to be face-to-face.
• The sample might be biased as particular people may choose to complete or ignore the questionnaire.
• It is difficult to verify the accuracy of the data, leading to reliability issues.
• Question types may affect the detail or validity of the data.

4.4 What are case studies? (Page 83)

1. Give two reasons why a psychologist might choose to investigate behaviour using the case study method. (2 marks)
   • It provides detailed information about people.
   • It reveals changes in behaviour over time.
   • It can provide evidence that a theory is not an accurate account of behaviour.

2. Identify one weakness that might arise when a researcher uses the case study method. (1 mark)
   • Issues of subjectivity.
   • Lack of generalizability.
   • Possible ethical issues.

3. Explain how the weakness you identified in Question 2 could be dealt with by the researcher. (2 marks)
   • Use another researcher to provide interpretations of the data given and check for discrepancies.
   • Conduct more case studies on people with similar behaviours and look for consistency in the interpretations.
   • The researcher would have to check with the individual, and significant others if necessary, that they were happy to continue and understood what was happening and why, gaining consent to continue at all points.

4.5 What are observation studies? (Page 87)

1. Explain one reason why observation studies can be said to have ecological validity. (3 marks)
   • People tend to be unaware that they are being recorded. This increases the validity of the data being collected because it is likely to be natural and what would normally be produced in that situation.
   • The behaviour being observed is actions rather than measurements, so can be said to be less artificial than many tasks in other psychological investigations. For example, seeing someone’s response to an incident is more realistic than getting them to recall a list of words.

2. Two psychologists conducted an observation study of males and females parking their cars in a supermarket car park. Explain why the psychologists decided that they should both record the behaviour of the drivers. (3 marks)
   • The observers would make independent records of the same event using the same record sheet.
   • These can then be compared.
   • The degree of similarity would indicate the degree of reliability of the data collected.
   • The more similar, the more reliable the data.
3. Briefly discuss one ethical issue that might occur in an observation study and explain how this issue might be dealt with. (3 marks)
   - Issues such as deception, protection from harm, right to withdraw, respect and privacy are acceptable examples.
   - All can be dealt with by some form of checking with the participants after participation that they now understand what the study was about after being debriefed/feel happy about their participation after being debriefed/agree to leave their data after debriefing.

4. Discuss one strength and one weakness of observation studies in psychology. Use examples of research to support your answer. (6 marks)
   - People tend to be unaware that they are being recorded. This increases the validity of the data being collected because it is likely to be natural and what would normally be produced in that situation.
   - The behaviour being observed is actions rather than measurements so can be said to be less artificial than many tasks in other psychological investigations. For example, seeing someone’s response to an incident is more realistic than getting them to recall a list of words.
   - The behaviour that is seen and recorded is not usually explained by the participant and is interpreted by the researcher(s). This interpretation could be incorrect.
   - Not all data may be recorded accurately.
   - Participants may become aware they are being observed and may alter their behaviour.
   - It may not be possible to gain consent or post warnings that observations are being conducted, so people may never be informed they have been observed.
   - (Credit appropriate references to research to support the answer.)

4.6 What is correlation? (Page 91)

1. What is meant by the term ‘positive correlation’? (2 marks)
   - A relationship between two variables where as the value of one variable increases, the value of the other variable also increases.

2. Explain why correlation can be useful in psychology. (2 marks)
   - It allows a possible relationship between two variables to be established.
   - Identified relationships between two variables can be used to predict likely behaviours on one variable if the other has been measured.
   - It can be used when experimentation would be unethical.

3. What is the difference between an experiment and a correlation study? (2 marks)
   - Because the IV is controlled by the researcher in an experiment, and other EVs are controlled too, experiments establish cause and effect.
   - Correlations only identify relationships between two variables but do not indicate which variable is the cause of the relationship.

4.7 What are ethics in psychology? (Page 93)

1. Identify one ethical issue that might occur in a study of perceptual set. Explain why it is an issue and how it could be dealt with. (4 marks)
   - Treating people with respect.
   - Telling people it is a perception study but not explaining fully what is going to happen and what the researcher wants to find out is unethical.
   - If they agree to participate under these circumstances they will need to be debriefed fully.
• This allows them to make an informed decision about withdrawing their data.
• This allows the researcher to check they have been protected from harm.

2. Explain why researchers have to take special care when they wish to investigate the behaviour of young children. (4 marks)
• Participants under 16 must give their consent if they are developmentally able to do so.
• Researchers cannot rely on only personal consent from anyone under 16.
• Other significant people must also give consent.
• Parents/guardian or someone in loco parentis would be acceptable.
• Younger participants may not be able to state they want to withdraw so someone other than the researcher must check this throughout the study.
• Younger participants may not understand the debriefing so others must judge whether the study has been conducted ethically and it is acceptable for the data to be retained.

4.8 What is data handling? (Page 99)

1. Calculate the mean, mode, and median for the following set of values:
21, 17, 6, 16, 14, 17, 15, 20. (3 marks)
• Mean: 15.75
• Median: 16.5
• Mode: 17

2. Draw a table of results to represent the answers to question 1 above. (3 marks)

| Table of descriptive statistics |
|---------------------|------------------|
| Descriptive statistic | Value         |
| Mean                 | 15.75          |
| Median               | 16.5           |
| Mode                 | 17             |

3. What is the difference between a bar chart and a histogram? (2 marks)
• Bar charts display data that is in categories so the bars are separated from each other.
• Histograms display continuous data so the bars are touching.

Chapter 5: Social influence

5.1 What is conformity? (Page 105)

1. What is meant by the term ‘conformity’? Use an example to illustrate your answer. (2 marks)
• Conformity is when we change our opinions or behaviour to fit in with social norms due to perceived group pressure.
• For example, we might laugh at a joke even if we don’t find it funny when those around us do.

2. Identify one dispositional factor that can influence conformity. Explain why this factor is likely to affect conformity behaviour. (3 marks)
• One dispositional factor that can influence conformity is self-esteem.
• People with low self-esteem can feel insecure and assume others know more about what to say or do in social situations.
• This means that low self-esteem leads people to conform to the opinions or behaviour of others.

3. You and some friends are planning to meet up on Saturday afternoon. You want to go bowling but they all want to go shopping. Outline one social factor that will influence whether or not you go shopping with them. Explain how this factor will affect your behaviour in this situation. (4 marks)
   • One social factor that will influence whether or not you go shopping is the number of people in your friendship group.
   • Research has shown that we are more likely to go along with the decisions of others when we are in a large group with three or more other members who have the same opinion compared to when there are less people in the group.
   • This means we are more likely to conform and go shopping with our friends if there is a big group of friends who all want to go shopping rather than a smaller group of just two friends who want to do so.

5.2 What is obedience? (Page 111)

1. What is meant by the term ‘obedience’? Use an example to illustrate your answer. (2 marks)
   • Obedience is following the orders of an authority figure.
   • For example, picking up a piece of litter when your head teacher tells you to do so.

2. Explain the difference between a social and dispositional explanation for obedience. (3 marks)
   • Social explanations for obedience use external situational factors like proximity and authority to explain obedience behaviour.
   • Dispositional explanations use internal personal characteristics like personality to explain obedience.
   • The difference between them is whether internal or external factors are used to explain obedience.

3. Describe and evaluate one theory used to explain obedient behaviour. (9 marks)
   • One theory used to explain obedience behaviour is Milgram’s Agency theory.
   • Milgram says that usually we feel free to choose how to behave and feel responsible for our actions.
   • However, we enter an agentic state when we are acting on behalf of an authority figure. We no longer see ourselves as being responsible for our behaviour. Instead we see this responsibility lying with the person who gives us orders, so we are likely to follow orders even if we don’t think it is the right thing to do.
   • Milgram says we are taught to enter an agentic state from a young age because we are brought up to respect and obey authority figures.
   • This theory can help us to understand the high levels of obedience found in Milgram’s study, as the experimenter told participants he would take responsibility for their actions. This suggests that participants were in an agentic state when they followed orders. If they had felt responsible for their actions, it is likely that obedience levels would have been lower.
   • However, Milgram’s agency theory does not help us to understand why some people are more likely to enter an agentic state than others. Dispositional factors like personality are also likely to play a role in obedience behaviour and may help us to understand why some people are less obedient than others.
5.3 What is prosocial behaviour? (Page 113)

1. Identify one dispositional and one social factor that can influence bystander behaviour. (2 marks)
   - One dispositional factor that can affect bystander behaviour is expertise.
   - One social factor that can affect bystander behaviour is the cost of helping.

2. Read the following statements about bystander behaviour. Decide whether each statement is true or false.
   A. Bystanders are less likely to help people in need when the victim has similar characteristics to them. (1 mark)
   B. Bystanders are more likely to offer help to someone in need when the rewards of helping are higher than the costs of helping. (1 mark)
   C. The presence of others may lead to bystander apathy due to the diffusion of responsibility. (1 mark)
   - A False
   - B True
   - C True

3. Describe and evaluate one way in which bystander behaviour was investigated in the Piliavin study. In your answer include the method used, the results obtained, and the conclusion drawn. (6 marks)
   - Piliavin conducted a field experiment to investigate bystander behaviour.
   - An actor pretended to collapse in a subway train carriage. In some of the trials, he appeared to be drunk and carried a bottle of alcohol wrapped in a paper bag. In the rest of the trials he appeared to be sober and carried a walking stick.
   - Observers recorded how often and how quickly the victim was helped.
   - When the victim carried a walking stick, he received help 95 per cent of the time within 70 seconds. When he appeared to be drunk he received help 50 per cent of the time within 70 seconds.
   - Piliavin concluded that a person's appearance will affect whether or not they receive help from bystanders.
   - A strength of this study is that it was carried out on a subway train in New York, which is a natural setting. Participants did not know they were taking part in a study so did not show demand characteristics but acted as they normally would. This means that it has high ecological validity and can be applied to explain bystander behaviour in real life situations.
   - However, Piliavin's study was carried out in America which is an individualistic culture. Individualistic cultures place emphasis on people sorting out their own problems, while collectivistic cultures place more emphasis on helping others. Research suggests that helping behaviour is not the same in individualistic and collectivistic cultures. This is a weakness of Piliavin's research as it cannot be generalised to explain bystander behaviour in all cultures.

5.4 What are crowd and collective behaviours? (Page 119)

1. What is meant by the term ‘social loafing’? (2 marks)
   - Social loafing is putting less effort into doing something when you are with others doing the same thing.

2. Describe how deindividuation can lead to antisocial crowd behaviour. (4 marks)
   - Deindividuation can lead to antisocial crowd behaviour because people feel more anonymous within a crowd than when alone.
• This leads people to lose their inhibitions and sense of responsibility for what they do.
• They are more likely to behave in antisocial ways, because they feel they are unlikely to be punished for doing so: if no one knows who they are, they cannot be punished.

3. Explain how personality might affect collective behaviour. Use an example to illustrate your answer. (6 marks)
• Personality can affect collective behaviour as a result of whether an individual has an internal or external locus of control.
• ‘Internals’ take more responsibility for their behaviour because they believe they can control the things that happen to them, while ‘externals’ attribute the things that happen to them to factors that are out of their control.
• In a collective situation such as a football match where some members of the crowd start shouting insults at the referee, ‘internals’ are less likely to follow the crowd if they believe it is wrong to do so. However, ‘externals’ are more likely to follow the crowd and conform to the behaviour of those around them, so are more likely to join in and shout insults too.

Chapter 6: Language, thought, and communication

6.1 What is the relationship between language and thought? (Page 125)

1. What is meant by the term ‘language’? (2 marks)
• A system of communication.
• Used by a specific group of people.

2. Outline Piaget’s theory of the relationship between language and thought. (4 marks)
• Cognitive development leads to the growth of language.
• We can only use language at a level that matches our cognitive development.
• Children develop language in four stages: the sensorimotor stage (babies learn to copy the sounds they hear others making); the preoperational stage (children use language to voice their internal thoughts, rather than to communicate with other people); the concrete operational stage (language has developed but is only used to talk about actual, concrete things); the formal operational stage (language can be used to talk about abstract, theoretical ideas).
• Some people do not get to the formal operational stage.

3. Use your knowledge of psychology to evaluate Piaget’s theory of language and thought. (5 marks)
• Piaget did many of his observations on his own so there was no inter-observer reliability.
• Some of his participants were his children, therefore their behaviour was probably natural but personal bias may have affected his judgement, so his findings may not be valid.
• Piaget’s sample size was small so his findings cannot be generalised to all children.
• There is more research to support other theories about language and thought.

6.2 How are human and animal communication different? (Page 131)

1. Decide whether each of the following statements is true or false.
   A Bees do a waggle dance to communicate to other bees that there is a food source close to the hive. (1 mark)
B Bees use the straight part of the waggle dance to communicate the direction of a food source to other bees. (1 mark)

- A False
- B True

2. Using your knowledge of psychology, discuss properties of human communication that are not present in animal communication. (9 marks)

- Only human language is believed to have all the design features of language.
- Productivity allows language to be used creatively and is not found in animal communication.
- Displacement allows language to be used for planning ahead and discussing future events, and is rarely seen in animal communication.
- Planning behaviours in animals is likely to be instinctive or innate, rather than communicated ideas.
- It is hard to know for sure which properties or design features are only used by humans because more is being learned about animal communication all the time.

6.3 What is non-verbal communication? (Page 137)

1. State one function of eye contact. (1 mark)

- Regulating flow of conversation.
- Signalling attraction.
- Expressing emotion.

2. Explain the difference between open posture and closed posture. (3 marks)

- Closed posture: positioning the arms so that they are folded across the body and/or crossing the legs.
- Open posture: positioning the arms so they are not folded across the body and not crossing the legs.

3. Discuss factors that have been found to affect personal space. (6 marks)

- Cultural – e.g. the comfortable conversation distance for the white English people is 1–1.5 m, whereas the comfortable conversation distance for the Arab people is much less.
- Status – people of lower status stand closer to people of equal status than to people of higher status. People of higher status feel freer than people of lower status to choose how close they get to someone.
- Gender differences – men tend to have a bigger personal space than women and both genders prefer to have a greater amount of space between themselves and members of the opposite sex. Women prefer to sit beside their friends and men prefer to sit opposite them.
- Age – people tend to sit or stand nearer to each other if they are a similar age.
- Personality type – introverts have a larger personal space than extroverts.

6.4 How is non-verbal behaviour explained? (Page 141)

1. What is meant by the term ‘innate’? (2 marks)

- Inborn or inherited.
- Not learned.

2. Give an example of a non-verbal behaviour that is considered to be innate. (1 mark)

- Facial expressions such as anger, disgust, fear, happiness, sadness, and surprise.
3. Evaluate Darwin’s evolutionary theory of non-verbal communication. (5 marks)
   - There is research to support Darwin’s claims, e.g. medical evidence supports the idea that the function of our nervous system causes certain actions, such as pupil dilation.
   - However, there is also research that supports the theory that non-verbal behaviour is learned.
   - Some behaviours may be both innate and learned, e.g. we are born with the ability to laugh – but we can also learn to control this behaviour and to use it in socially and culturally appropriate ways.
   - Not all human behaviours obviously help humans to survive or reproduce.

Chapter 7: The brain and neuropsychology

7.1 What is the nervous system? (Page 147)

1. Decide whether each of the following statements is true or false.
   a) The function of the central nervous system is to coordinate incoming sensory information. (1 mark)
   b) The only function of the somatic nervous system is to pass information about our internal organs to the central nervous system. (1 mark)
   - a) True
   - b) False

2. Using an example, explain the function of the peripheral nervous system. (3 marks)
   - The peripheral nervous system collects information from the sense receptors, using sensory neurons, and carries this to the central nervous system.
   - The peripheral nervous system sends messages from the central nervous system to muscles using motor neurons.
   - An example is information about the sound of the radio being too loud, which leads to the hand turning down the volume.

7.2 Are you ready for action? (Page 150)

1. Identify three ways that the body responds physically during the fight or flight response. (3 marks)
   - We breathe more deeply.
   - Our heart rate increases.
   - We sweat more.
   - The pupils of our eyes dilate.
   - The blood thickens.
   - The brain produces natural painkillers called endorphins.

2. Describe and evaluate the James-Lange theory of emotion. (6 marks)
   - As a result of things that happen, our autonomic nervous system is stimulated and we experience physical changes in the body e.g. our heart speeds up, we breathe more deeply, we start sweating.
   - Our emotions are us perceiving these physical changes in the body.
The brain makes sense of these changes by concluding that we are feeling certain emotions.

Research has not found separate and distinctive patterns of physiological arousal for every different emotion we experience. This would have to be the case for the theory to be correct.

Other researchers have suggested there is also a cognitive component involved – i.e. our interpretation of the situation is also important. There is research supporting the idea that physiological change and cognitive interpretations both lead to emotional experiences.

7.3 What are neurons? (Page 153)

1. Explain what is meant by the term ‘neurotransmitter’. (2 marks)
   - A chemical which is released into the synapse by one neuron, and picked up by the next neuron.

2. Draw and label a diagram of a sensory neuron. On your diagram label the following: axon, cell body, myelin sheath, dendrite, synaptic knob, and the direction of the impulse. (4 marks)

7.4 What is the brain like? (Page 157)

1. Briefly explain where the cerebellum is and what two of its functions are. (3 marks)
   - A small, wrinkled structure at the back of the brain.
   - Functions include motor movement (in which the actions of the hands and feet etc. are determined), dexterity (which controls fine muscle movement like writing or threading a needle), balance (which enables us to steady ourselves when doing things like riding a bike) and coordination (which enables us to string actions together so we can do a sequence like completing a dance).

2. Explain what might happen to a person’s ability to use language if there is damage to a language area of the brain. (2 marks)
   - People with damage to Broca’s area can understand what is said to them, but have problems saying things themselves (a condition known as motor aphasia).
   - People with damage to Wernicke’s area can speak perfectly well, but they have problems understanding what other people are saying to them (a condition known as Wernicke’s aphasia).
   - People who have suffered injury to the angular gyrus can experience difficulties in reading (a condition known as acquired dyslexia).
3. Draw and label a diagram of the human brain. On your diagram label the following: frontal lobe, temporal lobe, parietal lobe and the occipital lobe. (2 marks)

![Diagram of the human brain with labeled lobes: frontal lobe, temporal lobe, parietal lobe, and occipital lobe.]

4. Explain what is meant by localisation of function in the brain. (6 marks)
   - Some brain functions are associated with particular areas on the cerebral cortex.
   - These localised functions include movement, touch, vision, hearing, and language.
   - The area which controls movement is called the motor area, the area concerned with hearing is called the auditory cortex, and the area which deals with vision is called the visual cortex.
   - Scans such as fMRI allow researchers to see which areas of the brain are active when we perform specific tasks and this identifies localised functions.
   - When parts of the brain have been damaged by injury or disease, it is likely that people will lose some abilities.

7.5 What is neuropsychology? (Page 163)

1. Give two scanning techniques used to identify brain functioning. (2 marks)
   - CT scan.
   - PET scan.
   - fMRI scan.

2. Identify one possible cause of neurological damage. (1 mark)
   - Injuries to the spinal cord.
   - Head injuries.
   - Stroke.

3. Briefly outline two different effects that neurological damage can have on motor abilities or behaviour. (2 marks)
   - Injuries to the spinal cord could cause physical problems like paralysis, or an inability to control particular muscles.
   - Head injuries could cause paralysis, loss of balance and coordination.
   - A stroke could cause slurred speech, dragging muscles on one side of the face, lessened function of the muscles on one side of the body and emotional and behavioural changes, such as forgetfulness, anxiety, anger, depression and problems with memory.
Chapter 8: Psychological problems

8.1 What is mental health? (Page 171)

1. Decide whether each of the following statements is true or false.
   a) Positive engagement with society and effectively coping with challenges are both characteristics of mental health. (1 mark)
   b) Very few cultures view having a mental health problem as shameful or something to be disapproved of. (1 mark)
      • a) True
      • b) False

2. What is meant by the term ‘mental health’? (2 marks)
   • A person’s emotional and psychological wellbeing.
   • Allows them to cope with the normal stresses of everyday life and to function in society.

3. Discuss possible reasons for changes in the number of diagnosed mental health problems. (6 marks)
   • Cultural variations in beliefs about mental health problems.
   • Increased challenges of modern living, e.g. isolation.
   • Increased recognition of the nature of mental health problems.
   • Lessening of social stigma.

8.2 What are the effects of mental health problems? (Page 173)

1. Identify two effects of mental health problems on society. (2 marks)
   • Need for more social care.
   • Possible increased crime rates.
   • Implications for the economy.

2. Discuss at least one way in which relationships may be affected by mental health problems. (4 marks)
   • Family members may also develop some form of mental health problem.
   • Family members may end up becoming caregivers.
   • The effect on the household income can also increase stress levels.
   • Children may not understand why their parent is different or unable to care for them and they may blame themselves.
   • Some children end up becoming the parent’s caregiver and others may end up in the care system.

8.3 What is depression? (Page 175)

1. What is meant by the term ‘bipolar depression’? (2 marks)
   • A mood disorder.
   • Causes an individual’s mood, energy and activity levels to change from one extreme to another.
2. State three symptoms of unipolar depression. (3 marks)
   - Low mood.
   - Reduced energy and activity levels.
   - Changes to sleep pattern.
   - Changes to appetite levels.
   - Decreased self-confidence.
   - Lack of interest and enjoyment.
   - Reduced concentration and focus.
   - Feelings of guilt and worthlessness.
   - Negative thoughts about the future.
   - Suicidal thoughts.

8.4 What causes depression? (Page 179)

1. What are 'negative schemas'? (2 marks)
   - A biased cognitive model of people, objects or situations.
   - Based on previous information and experience that directs us to perceive, organise or understand new information by focusing on what is bad.

2. Decide whether each of the following statements is true or false:
   a) Research has found that CBT is much less effective than antidepressants in treating depression. (1 mark)
   b) Research has found that CBT is more effective than antidepressants in treating depression. (1 mark)
      a) False
      b) True

3. Outline how negative schemas might be linked to depression. (4 marks)
   - Negative schemas mean that people view themselves and the world in a negative way.
   - People with negative schemas can also make errors in their thinking – e.g. exaggerating how bad things may get or ignoring positives.

4. Use your knowledge of psychology to evaluate the use of antidepressants to treat depression. (5 marks)
   - There is some uncertainty as to how effective they actually are.
   - Although many people experience some improvement, especially in cases of severe depression, they may not be as effective for mild depression.
   - The Royal College of Psychiatrists says that 50 to 65 per cent of people with depression will improve as a result of taking antidepressants.
   - However, 25 to 30 per cent of people will also improve when they take a fake pill, or placebo.
   - Antidepressants also have a number of possible side effects.

5. Evaluate Wiles' study of the effectiveness of CBT. (5 marks)
   - The study showed that CBT can be an effective way of reducing the symptoms of depression. However, 54 per cent of participants did not show a notable improvement.
   - This study was longitudinal: it showed changes and effects over time, but 32 per cent of the participants did not complete the whole study.
• Controls were put in place to ensure that participant variables were limited.
• Participants were treated ethically – all participants were able to continue with their usual medical care.

8.5 What is addiction? (Page 183)

1. What is meant by the term ‘addiction’? (2 marks)
   • Repeated use of a substance.
   • Becoming entirely focused on a substance.
   • Needing to have a substance regularly in order to avoid withdrawal symptoms.

2. State three symptoms of dependence syndrome. (3 marks)
   • A strong desire to use a substance despite harmful consequences.
   • Difficulty in controlling use.
   • Experiencing withdrawal symptoms when substance use is reduced or stopped.
   • Increased tolerance to a substance, which means that increasingly larger amounts are needed in order for the same effects to be experienced.
   • A higher priority given to the substance than to other activities or obligations.

8.6 What causes addiction? (Page 189)

1. Outline how genetic vulnerability might be linked to addiction. (4 marks)
   • Some people may inherit a genetic vulnerability or biological susceptibility towards addiction.
   • People with certain genes may be more likely than others to become addicted to the substances they try.
   • Other factors, such as environment, are also involved.
   • Evidence for there being a genetic vulnerability towards addiction initially came from twin studies, such as Kaij’s twin study of alcohol abuse.
   • Some progress has been made towards identifying the genes involved with addiction. There are thought to be hundreds, possibly thousands of genetic variations involved.

2. Describe Kaij’s target population. (3 marks)
   • Identical/monozygotic twins and non-identical/dizygotic twins.
   • Male.
   • Born in Southern Sweden after 1880.
   • At least one twin was on the public register of alcohol abusers.

3. Use your knowledge of psychology to evaluate the use of aversion therapy to treat an addiction. (5 marks)
   • Research suggests it is successful but the effects tend to be short-term.
   • It tends to be most effective and long-lasting when individuals also receive other support.
   • It is a very unpleasant treatment to experience and this means that there is quite a high dropout rate and ethical concerns.
   • It is a reductionist approach – it only deals with an individual’s learnt desire to use a substance and does not look at other factors involved in addiction, such as biological, environmental or social factors.
   • It focuses on the ‘here and now’ problem and does not look at ones from the past which may have originally influenced the individual to start using substances.
4. Evaluate Kaij’s twin study of alcohol abuse. (5 marks)

- The findings cannot be generalised to addiction to substances other than alcohol.
- The sample is limited because all of the participants were twins, male and Swedish. This is not representative of people who are female or who are not twins or Swedish.
- Identical twins are often treated the same so it may be environment (nurture) and not genetics (nature) that was the cause of the similar levels of alcohol use.
- 46 per cent of the identical twins were not in the same category as their co-twin for alcohol use, which suggests factors other than genetic ones must also be involved.