GradeMax



Mark Scheme (Results)

June 2025

Pearson Edexcel International Advanced Level in Psychology (WPS04) Paper 01 Clinical Psychology and Psychological Skills

Edexcel and BTEC Qualifications

Edexcel and BTEC qualifications are awarded by Pearson, the UK's largest awarding body. We provide a wide range of qualifications including academic, vocational, occupational and specific programmes for employers. For further information visit our qualifications websites at www.edexcel.com or www.btec.co.uk. Alternatively, you can get in touch with us using the details on our contact us page at www.edexcel.com/contactus.

Pearson: helping people progress, everywhere

Pearson aspires to be the world's leading learning company. Our aim is to help everyone progress in their lives through education. We believe in every kind of learning, for all kinds of people, wherever they are in the world. We've been involved in education for over 150 years, and by working across 70 countries, in 100 languages, we have built an international reputation for our commitment to high standards and raising achievement through innovation in education. Find out more about how we can help you and your students at: www.pearson.com/uk

June 2025
Question Paper Log Number P78780
Publications Code WPS04_01_2506_MS
All the material in this publication is copyright
© Pearson Education Ltd 2025

General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

CLINICAL PSYCHOLOGY

Question Number	Answer	Mark
1(a)	**AO2 (4 marks)** Credit up to **four** marks for an accurate description of the procedure for the clinical practical investigation. For example; • Before gathering our secondary sources, we agreed a coding system that contained the key words and phrases that reflected positive and negative attitudes to mental health (1). We used a standard search engine online to search for media reports about people with mental health issues committing criminal offences (1). We printed ten articles which were numbered so we could select two articles at random to use in our content analysis (1). We highlighted negative attitudes such as 'dangerous', and factual information as neutral attitudes and counted the total for each category (1). **Look for other reasonable marking points.** **Generic answers score 0 marks.** **Must relate to clinical practical (content analysis that explores attitudes to mental health).**	**(4)**

Question Number	Answer	Mark
1(b)	**AO2 (2 marks)** Credit up to **two** marks for an accurate description of results for the clinical practical investigation. For example; • We found that in tabloid and mass media news outlets there was a higher percentage of negative comments to mental health than positive or neutral comments (1). One of our articles having 49% of the commentary coded as negative, only 28% as positive and the rest we classified as neutral comments (1). **Look for other reasonable marking points.** **Generic answers score 0 marks.** **Must relate to clinical practical (content analysis that explores attitudes to mental health).**	**(2)**

Question Number	Answer	Mark
2(a)	**AO1 (1 mark), AO3 (1 mark)** Credit **one** mark for accurate identification of a reason (AO1) Credit **one** mark for justification/exemplification of the reason (AO3) For example; • One reason why culture may influence diagnosis is that clinicians may view symptoms with an ethnocentric bias from their own cultural norms when diagnosing mental health disorders (1). Cooper et al. (1972) found that New York psychiatrists were twice as likely to diagnose schizophrenia than London psychiatrists when shown the same video-taped clinical interviews, suggesting a cultural influence (1). **Look for other reasonable marking points.**	**(2)**

Question Number	Answer	Mark
2(b)	**AO1 (1 mark), AO3 (1 mark)** Credit **one** mark for accurate identification of a reason (AO1) Credit **one** mark for justification/exemplification of the reason (AO3) For example; • One reason why culture may not influence diagnosis is that the DSM contains clearly defined diagnostic features and symptoms for mental health disorders that can be used in all English speaking countries (1). Lee (2006) found that using the DSM in Korea for diagnosis of ADHD was as valid as using it in the USA, so cultural differences had no influence on diagnosis (1). **Look for other reasonable marking points.**	**(2)**

Question Number	Answer	Mark
3(a)	**AO1 (4 marks)** Credit up to **four** marks for an accurate description. For example; Hans and Hiller (2013) • The meta-analysis into CBT dropout rates was conducted using 34 effectiveness studies from manual and electronic searches and they only used studies of the adult population (1). They operationalised their search criteria using terms such as 'nonrandomised' in order to gather their secondary sources (1). Any studies with patients having less than half of the usual 12 CBT sessions were excluded from selection as non-representative of CBT (1). Hans and Hiller were both trained in the coding protocol, Hans coded all studies and Hiller coded 20% of them, with any discrepancies being resolved by discussion (1). Ma, Quan and Liu (2014) • They sampled 538 university students (281 females and 257 males) with a mean age of 19.4 years old (SD=2.8) gaining informed consent from all participants (1). The study used existing questionnaires; the Core Self-Evaluations Scales (CSES), the Multidimensional Scale of Perceived Social Support (MSPSS), the Zung Self-Rating Depression Scale (SDS) (1). Participants completed an online survey that consisted of the CSES, MSPSS and SDS, the hyperlink to the survey was distributed using online forums (1). The IP addresses of participants were monitored to ensure each participant did not complete the survey and questionnaires more than once (1). Becker et al. (2002) • Fiji was selected as there was an extremely low prevalence of eating disorders and Nadroga had no television prior to this being introduced in mid-1995 (1). A cross-sectional method was used to sample two separate groups of girls in 1995 prior to television and 1998, three years after television (1). 63 girls participated in the 1995 pre-television sample and 65 girls participated in the 1998 post-television sample (1). The girls completed a 26-item eating attitudes test, and a semi-structured interview was conducted with anyone reporting a binge eating or purging behaviour in their EAT-26 responses (1).	**(4)**

Question Number	Answer	Mark
3(a)	Reichel et al. (2014) • 72 female adolescents and young adults, 36 with a primary diagnosis based on ICD-10 criteria of anorexia nervosa without hearing or visual impairments, neurological disease or medication affecting a startle reflex took part (1). All participants gave written informed consent; additional written consent was obtained from legal guardians of minors where required (1). Participants were seated in front of a screen to view 52 images that included emaciated bodies (1). Their startle reflex was measured as eye-blink response recorded from electromyographic activity (EMG) over the left orbicularis oculi muscle (1). **Look for other reasonable marking points.**	**(4)**

Question Number	Answer	Mark
3(b)	**AO1 (2 marks), AO3 (2 marks)** Credit **one** mark for accurate identification of each strength (AO1) Credit **one** mark for justification/exemplification of each strength (AO3) For example; Hans and Hiller (2013) • The exclusion of any data from randomized control trial (RCT) studies gives the findings of Hans and Hiller (2013) validity to a realistic use of cognitive behavioural therapy (CBT) with patients undertaking this therapy for unipolar depression (1) as RCT's were considered unrepresentative of the day to day clinical practice that takes place with patients (1). • There is strong reliability in the data as Hans and Hiller (2013) were both trained in the coding protocol for the studies that were used in the analysis (1), so the use of inter-coder reliability checks on 20% of the studies coded helps reduce subjectivity and bias in the data gathered about CBT dropout rates (1).	**(4)**

Question Number	Answer	Mark
3(b)	For example; Ma, Quan and Liu (2014) • 538 undergraduates are a large sample size which reduces the effect of anomalies skewing the data gathered from the completion of the questionnaire (1), so the findings about social support can be considered reliable data that accurately measures self-rated perceived support (1). • The Core Self-Evaluations Scales (CSES) is a previously tested questionnaire for core self-evaluations, so the study accurately measured social support and depression (1), so using the CSES increased internal validity by giving a consistent measure of traits to help ensure that the data gathered reflects a realistic assessment (1). Becker et al. (2002) • Becker et al. (2002) can be confident that their natural IV of the effect of television is what influenced the DV of eating behaviour of the girls in Nadroga (1), so they can make reliable conclusions about the role of western television media on girls eating behaviours (1). • The EAT-26 is a previously tested questionnaire for binge eating or purging eating behaviour, so the study accurately measured eating behaviour changes (1), so using the EAT-26 increased internal validity by giving a consistent measure of eating to help ensure that the data gathered reflects a realistic assessment (1). Reichel et al. (2014) • Using scientific measures of startle reflex/heart rate ensured they used an objective measurement of the DV to determine the impact of the images (1), so the results can be considered reliable as researcher bias and subjective interpretation of reactions such as eye-blink responses has been removed (1). • Gaining informed consent meant the female participants would have understood their right to withdraw from the process if the images shown were distressing (1), ensuring the ethical considerations were upheld in line with the BPS Code of Conduct (2009) provided for a minimisation of distress and a right to leave the research (1). **Look for other reasonable marking points.**	**(4)**

Question Number	Answer	Mark
4(a)	**AO2 (2 marks), AO3 (2 marks)** Credit **one** mark for accurate identification of each strength in relation to the scenario (AO2) Credit **one** mark for justification/exemplification of each strength (AO3) For example; • Varsha was given the same drugs that she received in the hospital which effectively suppressed her hallucinations and delusions (1). Emsley (2008) found that risperidone had at least a 50% reduction in positive and negative symptoms in 84% of the patients studied, which could help Varsha manage her schizophrenia long term (1). • Varsha's anti-psychotics can reduce her symptoms of schizophrenia more rapidly than therapies such as family therapy, so have quickly reduced her distress and dysfunction (1). Meltzer et al. (2004) found patients using haloperidol showed improvement in day to day functioning, so drug therapy would allow Varsha to return to routines more quickly than other treatments (1). **Generic answers score 0 marks.** **Look for other reasonable marking points.**	**(4)**

Question Number	Answer	Mark
4(b)	**AO2 (2 marks), AO3 (2 marks)** Credit **one** mark for accurate identification of each weakness in relation to the scenario (AO2) Credit **one** mark for justification/exemplification of each weakness (AO3) For example; • The anti-psychotic drugs that Varsha has been given could have negative side effects which require Varsha to be monitored closely which may be difficult if she still struggles to leave the house (1), such as Clozapine that has a high risk of low blood pressure, which could lead to her fainting potentially causing her to have to go back to hospital (1). • Varsha needs to be willing to take her tablets on a daily basis for the antipsychotics to continue to be effective in managing her schizophrenic symptoms (1), however Rosa et al. (2005) found only 50% of patients complied with taking anti-psychotics, so Varsha's medication may be ineffective if her compliance to the treatment plan is low (1). **Generic answers score 0 marks.** **Look for other reasonable marking points.**	**(4)**

Question Number	Answer	Mark
5	**AO1 (3 marks), AO3 (3 marks)** Credit **one** mark for each accurate identification point (AO1) Credit **one** mark for justification of each point of analysis (AO3) **Unipolar depression** For example; • The cognitive model assumes depression is due to cognitive errors that people make about themselves due to a negative view of themselves which are internal affective processes (1), these can be difficult to scientifically measure and test as they are introspective, thus the explanation may lack reliable evidence of how negative thinking actually works (1). The concept that people with depression have a negative schemata and distorted processing of information has supporting evidence from Alloy and Abramson (1999) (1), with the findings from their longitudinal study of those with depression suggesting that students with negative thought patterns were more at risk from depression, supporting the role of schema (1). Bothwell and Scott (1997) found that faulty thinking and errors in cognitive processing, especially with needing approval and low self-esteem linked with the symptoms of depression (1) so there is further evidence for the concept that a negative self-concept involved in how people see themselves and what they think about themselves is a feature of unipolar depression experiences (1). **Anorexia nervosa** For example; • A learning theory explanation would suggest that young people, often girls, pay attention to the unrealistic imagery of 'thin' women by the western media and seek to imitate the role models they are exposed to (1), which is supported Barlow & Durand (1995) finding that over half of contestants in a 'Miss America' beauty contest were 15% or more below expected body weight (1). However, even though a disproportional gender diagnosis can be linked to unrealistic body images of women in the media it is likely there is more than just media exposure involved (1), as Eysenck & Flanagan (2000) highlight that virtually all young women in the West are exposed to the media, only 3-4% of them develop an eating disorder (1). Holland et al (1984) found that if an MZ twin had anorexia nervosa, then the concordance rate was 55%, supporting a genetic relatedness of the disorder rather than media (1), although social learning theory would suggest that familial members act as role models, so evidence from this study could be because the individual with anorexia nervosa was observed and imitated by their twin (1). **Look for other reasonable marking points.**	**(6)**

Question Number	Indicative Content	Mark
6	**AO1 (6 marks), AO3 (10 marks)** **AO1** • Schizophrenia has been explained as an imbalance of neurotransmitters such as dopamine and glutamate. • Positive symptoms are associated with the mesolimbic pathway and negative symptoms with the mesocortical pathway. • Hypodopamine plays a role in regulating perception, cognition, and attention in the pre-frontal cortex with overactive PFC associated with delusions in people with schizophrenia. • The number of neurotransmitter receptors for dopamine have been found to be higher in schizophrenic patients. • Ketamine blocks the glutamate receptors and induces schizophrenic symptom-like psychotic states and changes in cognitive function. • The NRG-1 gene has a role in expression and activation of glutamate and other neurotransmitter receptors. **AO3** • Bird et al. (1979) found that post-mortems of schizophrenic patients showed high levels of dopamine receptors in the brain allowing researchers to understand that dopamine is involved in schizophrenia. • Carlsson et al. (2000) found that hyperdopaminergia and hypoglutamatergia may play a role in schizophrenia which shows it may be a complete explanation of schizophrenia. • Aarsland et al. (1999) found that treatments for Parkinson's disease (L-dopa), that increase dopamine production, result in schizophrenic symptoms (hallucinations/delusions) helping explain how dopamine features in schizophrenia. • Wong et al. (1986) carried out PET scans on schizophrenic patients finding an increased density of dopamine receptors, which could explain an increased reuptake of dopamine in patients with schizophrenia. • Krystal et al. (1994) found glutamate NMDA receptor antagonists such as ketamine can induce a broader range of symptoms that resemble aspects of schizophrenia and dissociative states, so the functions of glutamate may be involved in symptoms. • Biological evidence is often done after someone has schizophrenia for a period of time so it is hard to know if the dopamine caused the schizophrenia or the schizophrenia caused the changes in dopamine activity. • Dépatie and Lal (2001) found that apomorphine, which stimulates dopamine receptors, did not result in schizophrenia symptoms, suggesting that dopamine is not a complete explanation of schizophrenia. • The cognitive explanation says that the change in neurotransmitters affects the processing of internal information and it is this that causes hallucinations, not the neurotransmitters on their own. • Gottesman (1991) found that there was a 48% chance of having schizophrenia if a person had a monozygotic (MZ) twin with schizophrenia, so neurotransmitters alone is not a complete explanation of the disorder. • Neurotransmitters are a reductionist explanation as it ignores environmental factors such as stress which are thought to be a trigger for schizophrenia therefore is not a complete explanation. **Look for other reasonable marking points.**	**(16)**

Level	Mark	Descriptor
AO1 (6 marks), AO3 (10 marks) Candidates must demonstrate a greater emphasis on evaluation/conclusion vs knowledge and understanding in their answer. Knowledge & understanding is capped at maximum 6 marks.		
	0	No rewardable material.
Level 1	1-4 Marks	Demonstrates isolated elements of knowledge and understanding. (AO1) A conclusion may be presented, but will be generic and the supporting evidence will be limited. Limited attempt to address the question. (AO3)
Level 2	5-8 Marks	Demonstrates mostly accurate knowledge and understanding. (AO1) Candidates will produce statements with some development in the form of mostly accurate and relevant factual material, leading to a superficial conclusion being made. (AO3)
Level 3	9-12 Marks	Demonstrates accurate knowledge and understanding. (AO1) Arguments developed using mostly coherent chains of reasoning leading to a conclusion being presented. Candidates will demonstrate a grasp of competing arguments but evaluation may be imbalanced. (AO3)
Level 4	13-16 Marks	Demonstrates accurate and thorough knowledge and understanding. (AO1) Displays a well-developed and logical evaluation, containing logical chains of reasoning throughout. Demonstrates an awareness of competing arguments, presenting a balanced conclusion. (AO3)

PSYCHOLOGICAL SKILLS

Question Number	Answer	Mark
7(a)	**AO2 (3 marks)** Credit up to **three** marks for an accurate description in relation to the scenario. For example; • The 8 adult participants would lie face up on the flat bed and would be asked to remain still when in the fMRI scanner tube (1). Leena will show the aggressive and non-aggressive stimuli to each participant through goggles with a digital display (1). Activity in the amygdala in response to the aggressive or non-aggressive stimuli can be measured through the increase in blood flow and oxygen recorded by the fMRI scanner (1). **Look for other reasonable marking points.** **Generic answers score 0 marks.**	**(3)**

Question Number	Answer	Mark
7(b)	**AO2 (1 mark), AO3 (1 mark)** Credit **one** mark for accurate identification of a strength in relation to the scenario (AO2). Credit **one** mark for justification/exemplification of the strength (AO3) For example; • The fMRI scan will provide Leena with an objective measure of the blood oxygen flow when the aggressive and non-aggressive stimuli are presented to the participant during the scan (1), which will increase the reliability of her research as the images reduce researcher bias from the data gathering process about the amygdala and aggression (1). **Look for other reasonable marking points.** **Generic answers score 0 marks.**	**(2)**

<table>
<tr><th>Question Number</th><th>Answer</th><th>Mark</th></tr>
<tr><td>7(c)</td><td>

AO2 (4 marks)

CLIP WITH 7(d)

Credit one mark for a correct completion of column d
Credit one mark for a correct completion of column d²
Credit one mark for a correct substitution into the equation
Credit one mark for a correct answer to three decimal places = -0.595

For example;

<table>
<tr><th>Self-rated aggression scores</th><th>Rank 1</th><th>Amygdala responsiveness</th><th>Rank 2</th><th>d</th><th>d²</th></tr>
<tr><td>2</td><td>1</td><td>7</td><td>7</td><td>-6</td><td>36</td></tr>
<tr><td>5</td><td>3</td><td>4</td><td>4</td><td>-1</td><td>1</td></tr>
<tr><td>6</td><td>4.5</td><td>4</td><td>4</td><td>0.5</td><td>0.25</td></tr>
<tr><td>8</td><td>7.5</td><td>2</td><td>1</td><td>6.5</td><td>42.25</td></tr>
<tr><td>3</td><td>2</td><td>8</td><td>8</td><td>-6</td><td>36</td></tr>
<tr><td>7</td><td>6</td><td>3</td><td>2</td><td>4</td><td>16</td></tr>
<tr><td>6</td><td>4.5</td><td>4</td><td>4</td><td>0.5</td><td>0.25</td></tr>
<tr><td>8</td><td>7.5</td><td>5</td><td>6</td><td>1.5</td><td>2.25</td></tr>
<tr><td colspan="5">Total for d²</td><td>134</td></tr>
</table>

$1 - \frac{6\Sigma d^2}{n(n^2-1)} = 1 - \frac{6\,x134}{8(64-1)} = 1 - \frac{804}{504} = 1 - 1.595 =$ -0.595

Look for other reasonable marking points.

</td><td>(4)</td></tr>
</table>

Question Number	Answer	Mark
7(d)	**AO2 (1 mark)** **CLIP WITH 7(c)** Credit **one** mark for an accurate determination in relation to the scenario. For example: • The calculated value of -0.595 is less than the critical value of 0.738, so the data is not significant (1). **Look for other reasonable marking points.** **Generic answers score 0 marks.**	**(1)**

Question Number	Answer	Mark
8	**AO1 (2 marks), AO3 (2 marks)** Credit **one** mark for accurate identification of a strength and a weakness (AO1). Credit **one** mark for justification/exemplification of the strength and the weakness (AO3) For example; **Strength** • An independent groups experimental/research design ensures that participants in the experiment only take part in one condition of the independent variable being manipulated (1) which prevents participants from experiencing order effects such as boredom or fatigue so that the findings from research are a more valid measure of the independent variable (IV) (1). **Weakness** • The participants taking part in each condition of the independent variable (IV) are different and may lead to participant variables being a factor that influences any change in the dependent variable (DV) being measured (1) which can mean the results lack validity as the confounding variables from individual traits such as personality or memory skills and not the IV may have caused the difference in the DV (1). **Look for other reasonable marking points.**	**(4)**

Question Number	Answer	Mark
9(a)	**AO2 (4 marks)** Credit up to **four** marks for an accurate description in relation to the scenario. For example: • Shardul could gather quantitative data about the effects of the weather on happiness by asking closed ended questions with predetermined responses (1). An example of a closed question is "On a rainy day, how do you feel?" Happy / Indifferent / Sad (1). Shardul can ask additional questions based on previous answers to find out in more detail why they felt happier on sunny days compared to rainy days (1). An example of an open question is "Describe why you feel happier on sunny days than you do on rainy days." (1). **Look for other reasonable marking points.** **Generic answers score 0 marks.**	**(4)**

Question Number	Answer	Mark
9(b)	**AO2 (1 mark), AO3 (1 mark)** Credit **one** mark for accurate identification of a reason in relation to the scenario (AO2). Credit **one** mark for justification/exemplification of the reason (AO3) For example: • Shardul would be able to gather data that is directly related to his research about the effects of weather on how happy or unhappy people may feel (1) which increases the construct validity of his investigation, as his results about weather and happiness will represent his intended aim (1). **Look for other reasonable marking points.** **Generic answers score 0 marks.**	**(2)**

Question Number	Indicative Content	Mark
10	**AO1 (4 marks), AO2 (4 marks)** **AO1** • Chomsky suggests that children are born with an innate language acquisition device (LAD) which includes the important characteristics of grammar. • According to Chomsky children have a critical period of language learning and only have an innate ability to learn language up to the age of puberty. • According to Skinner children are a 'tabula rosa' for language learning and require nurturing, with language learnt through processes of operant conditioning using reinforcement. • Correct words are rewarded with positive reinforcement to encourage continuation of the utterances and incorrect words can be positively punished to discourage the use of the inaccurate speech. **AO2** • Scovel's (1988) 'critical period hypothesis' that language is best learned during a child's early years fits with Chomsky's LAD, so a second language should be learned in the early years. • Similarly to Chomsky, Scovel's (1988) claim that after about 12 years old there are difficulties in new language acquisition would support the idea of early second language learning. • As adults can learn second languages throughout their lives. Skinner may be a better explanation for learning languages beyond puberty. • Adults use apps that reward continued practice of a second language through the use of gold stars which can motivate the person to carry on learning the language. **Look for other reasonable marking points.**	**(8)**

Level	Mark	Descriptor
AO1 (4 marks), AO2 (4 marks) Candidates must demonstrate an equal emphasis between knowledge and understanding vs application in their answer.		
	0	No rewardable material
Level 1	1–2 Marks	Demonstrates isolated elements of knowledge and understanding. (AO1) Provides little or no reference to relevant evidence from the context (scientific ideas, processes, techniques, and procedures). (AO2)
Level 2	3–4 Marks	Demonstrates mostly accurate knowledge and understanding. (AO1) Discussion is partially developed but is imbalanced or superficial occasionally supported through the application of relevant evidence from the context (scientific ideas, processes, techniques, and procedures). (AO2)
Level 3	5–6 Marks	Demonstrates accurate knowledge and understanding. (AO1) Arguments developed using mostly coherent chains of reasoning. Candidates will demonstrate a grasp of competing arguments, but discussion may be imbalanced or contain superficial material supported by applying relevant evidence from the context (scientific ideas, processes, techniques, and procedures (AO2)
Level 4	7–8 Marks	Demonstrates accurate and thorough knowledge and understanding. (AO1) Displays a well-developed and logical balanced discussion, containing logical chains of reasoning. Demonstrates a thorough awareness of competing arguments supported throughout by sustained application of relevant evidence from the context (scientific ideas, processes, techniques, or procedures). (AO2)

Question Number	Indicative Content	Mark
11	**AO1 (8 marks), AO3 (12 marks)** **AO1** • Nature refers to the internal, innate aspects of a person that they are born with, such as the endocrine system in hormone production. • Biological explanations of human behaviour focus on brain functioning such as drug taking behaviour in terms of reward pathway excitation. • Evolutionary explanations of actions such as aggression or attraction claim that an inherent 'survival of the fittest' motivates human behaviour to ensure strong genes are inherited. • Genes such as MAOA-L have been claimed to be the cause of predisposition to aggression but may require environmental stimuli to trigger aggressive behaviours. • Nurture refers to the environment, interactions, and experiences that a person has over the duration of their lifetime. • Psychodynamic explanations focus on the experiences of early childhood as explanations of personality development and later adult behaviours. • The stress-diathesis model says that human behaviour is a combination of nature and nurture. • Some disorders such as schizophrenia have psychological explanations from both the nature and nurture debate, for example neurotransmitter and social explanations. **AO3** • The role of the hormone testosterone has been linked by Lindman et al (1987) with aggression in males and so highlights that hormones play a significant role in violent behaviour and it is a result of nature not nurture. • Evidence produced by Raine et al (1997) of differences in the brains of murderers (NGRI) suggests that violence is a result of brain functioning in prefrontal cortex, giving strong evidence for the role of nature over nurture. • Olds and Milner (1954) found that stimulation of neural pathways resulted in the experience of pleasure, suggesting pleasure is simply the activation of brain regions. • David Reimer was born male but raised female, he actively rejected his female identity and at 15 years old he adopted his birth gender of male, showing nature played a more significant role than nurture in the development of gender behaviours. • Explanations of human behaviour that focus on nature are often reductionist, explaining behaviour in distinctly separate ways, such as neurotransmitters, and so fail to account for a holistic view of a person. • Bowlby (1944) provided evidence that although the need to bond with a caregiver is instinctive, the quality and consistency of the attachment that is formed determined human behaviours into adulthood, therefore requiring nature and nurture. • Freud provided case study evidence with 'Little Hans' that the experiences he had as a child with his father resulted in his phobia, once the Oedipus Complex was resolved, Little Hans no longer had this fear, so the phobia is attributed to nurture not nature. • Bandura, Ross and Ross (1961) observed children playing after seeing an aggressive role model, they found that children imitated the behaviour they observed, suggesting violence and aggression is actually a learned behaviour. • Bartlett's (1932) theory of reconstructive memory highlights how interpretation of events based on prior experience affects recall, therefore nurture plays a significant role in memory functioning. • Gottesman and Shields (1972) found a 58% concordance rate in MZ twins and schizophrenia symptoms, which shows evidence for genetic inheritance it is not 100% concordance, therefore there must be environmental factors involved. • The case of HM shows that human memory is a function of the brain, when HM had the hippocampus removed it created amnesia, therefore highlighting that brain structure is a key feature of human behaviour but an environmental process can change the operation of the brain, so nature and nurture are linked. • McDermott (2009) tested whether MAOA individuals display higher levels of aggression in response to provocation, finding that the role of the environment (provocation levels) had an influence on the level of aggression displayed, thus the role of nurture and nature are both important. **Look for other reasonable marking points.**	**(20)**

Level	Mark	Descriptor
AO1 (8 marks), AO3 (12 marks) Candidates must demonstrate a greater emphasis on assessment/conclusion vs knowledge and understanding in their answer. Knowledge & understanding is capped at maximum 8 marks.		
	0	No rewardable material.
Level 1	1–4 Marks	Demonstrates isolated elements of knowledge and understanding. (AO1) Generic assertions may be presented. Limited attempt to address the question. (AO3)
Level 2	5–8 Marks	Demonstrates mostly accurate knowledge and understanding. (AO1) Candidates will produce statements with some development in the form of mostly accurate and relevant factual material, leading to a generic or superficial assessment being presented. (AO3)
Level 3	9–12 Marks	Demonstrates accurate knowledge and understanding. (AO1) Arguments developed using mostly coherent chains of reasoning, leading to an assessment being presented which considers a range of factors. Candidates will demonstrate understanding of competing arguments/factors but unlikely to grasp their significance. The assessment leads to a judgement but this will be imbalanced. (AO3)
Level 4	13–16 Marks	Demonstrates accurate and thorough knowledge and understanding. (AO1) Displays a logical assessment, containing logical chains of reasoning throughout which consider a range of factors. Demonstrates an understanding of competing arguments/factors but does not fully consider the significance of each which in turn leads to an imbalanced judgement being presented. (AO3)
Level 5	17–20 Marks	Demonstrates accurate and thorough knowledge and understanding. (AO1) Displays a well-developed and logical assessment, containing logical chains of reasoning throughout. Demonstrates a full understanding and awareness of the significance of competing arguments/factors leading to a balanced judgement being presented. (AO3)

Pearson Education Limited. Registered company number 872828
with its registered office at 80 Strand, London, WC2R 0RL, United Kingdom