

Mark Scheme (Results)

October 2020

Pearson Edexcel International Advanced Level In Psychology (WPS04/01)
Paper 1: Clinical Psychology and Psychological Skills

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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)	**AO1 (2 marks)** Credit up to **two** marks for an accurate description For example; • An fMRI measures the changes in blood flow related to energy use (1) which shows neural activity in areas of the brain (1). **Look for other reasonable marking points.**	**(2)**

Question Number	Answer	Mark
1(b)	**AO2 (1 mark)** Credit **one** mark for an accurate symptom given in relation to the scenario For example; • Arthur may investigate the symptom of thought insertion (1). **Answers must apply to the scenario.** **Look for other reasonable marking points.**	**(1)**

Question Number	Answer	Mark
1(c)	**AO2 (2 marks), AO3 (2 marks)** Credit **one** mark for each accurate identification of a strength in relation to the scenario (AO2) Credit **one** mark for justification/exemplification of each strength (AO3) For example; • An fMRI technique to monitor brain functioning when listening to the recording is an objective measure (1) making the interpretation of how the brain is responding to the voices less subjective, increasing the reliability of his findings (1). • The use of a pre-recorded voice being played to the participants is a standardised procedure (1) so there is internal reliability that the participants all heard the same verbal information reducing the possibilities of extraneous variables confounding results (1). **Generic answers score 0 marks.** **Look for other reasonable marking points.**	**(4)**

Question Number	Answer	Mark
1(d)	**AO2 (2 marks)** Credit up to **two** marks for an appropriate suggestion in relation to the scenario For example; • Arthur could have controlled for any hearing impairments in his sample of patients (1) as they all needed to listen to the verbal information that was being played during the fMRI (1). **Generic answers score 0 marks.** **Look for other reasonable marking points.**	**(2)**

Question Number	Answer	Mark
2(a)	**AO2 (4 marks)** Credit up to **four** marks for an accurate description in relation to the scenario. For example; • A therapist will lead the session by asking initial questions to find out how the symptoms of schizophrenia affect Ruva and her parents, brother and cousin (1). Each family member will be able to contribute, for example her cousin may talk about how she feels about Ruva's diagnosis (1). The therapist will support her parents in sharing any concerns they have about schizophrenia or Ruva's behaviour (1) so that they can all agree on a course of action and solutions, such as what role her cousin can take if Ruva is struggling with her symptoms (1). **Generic answers score 0 marks.** **Look for other reasonable marking points.**	**(4)**

Question Number	Answer	Mark
2(b)	**AO2 (2 marks), AO3 (2 marks)** Credit **one** mark for each accurate identification of a weakness in relation to the scenario (AO2) Credit **one** mark for justification/exemplification of each weakness (AO3) For example; • Family therapy may only help her family support Ruva when she is experiencing the symptoms of schizophrenia rather than control the cause (1) as family therapy does not regulate the dopamine imbalance in the brain that is said to be a possible cause of schizophrenia (1). • The family must be engaged and positive about the therapy in order for the treatment to help Ruva feel supported (1) otherwise relapse may occur as Vaughn and Leff (1976) found a 48% chance of relapse in patients in families with high levels of negative attitudes to therapy (1). **Generic answers score 0 marks.** **Look for other reasonable marking points.**	**(4)**

Question Number	Answer	Mark
3(a)	**AO2 (1 mark)** Credit **one** mark for an accurate statement For example; • Laurels results are significant at P≤0.10 for a two tailed test where N=26 as the calculated value of 0.459 exceeds the critical value of 0.331 (1). **Look for other reasonable marking points.**	**(1)**

Question Number	Answer	Mark
3(b)	**AO2 (1 mark)** Credit **one** mark for an accurate identification of lowest probability level of significance. For example; • The lowest level of significance for Lauren to test her data would be P≤0.025 (1) **Look for other reasonable marking points.**	**(1)**

Question Number	Answer	Mark
3(c)	**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; • Laurel can find out if a relationship exists between the severity of anorexia nervosa and comorbid unipolar depression diagnosis before undertaking further research (1) which can save her the time and expense of undertaking an experimental research investigation that may be unnecessary if there is no relationship between the two disorders (1). **Generic answers score 0 marks.** **Look for other reasonable marking points.**	**(2)**

Question Number	Answer	Mark
4	**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) For example; • Diagnosis can be considered valid as the DSM and ICD have criterion validity when they are both used and diagnose the same disorder (1) as shown by Andrews et al. (1999) who found agreement in diagnosis in 1500 people for depression, substance dependence and anxiety, using the DSM-IV and ICD-10, so diagnosis is valid (1). Brown et al (2001) found two independent interviews using the DSM-IV criteria resulted in the same diagnosis of anxiety and mood disorders in 362 outpatients (1), so diagnosis can be considered reliable when a person receives the same diagnosis by different clinicians that indicates strong inter-rater reliability of the diagnostic criteria (1). High validity can be found when the criteria in the DSM and ICD accurately represent the reality of symptoms people have (1) as in the study by Kim-Cohen et al (2005) who reviewed DSM-IV diagnosis of conduct disorder using several data collection methods and found the diagnosis was a valid representation of the children's experiences. (1). **Look for other reasonable marking points.**	**(6)**

Question Number	Answer	Mark
5(a)	**AO1 (2 marks)** Credit **one** mark for an accurate symptom given. Credit **one** mark for an accurate feature given. **Anorexia nervosa** For example; • One symptom is low body weight that is at least 15% below expected (1). • One feature is that 1 in 100 women aged between 15 and 30 are affected by anorexia (1). **Unipolar depression** For example; • One symptom is a decreased interest or pleasure in most/all activities for most of every day (1). • One feature is that rate of unipolar depression in women is twice as high as in men. (1). **Look for other reasonable marking points.**	**(2)**

Question Number	Answer	Mark
5(b)	**AO1 (3 marks)** Credit up to **three** marks for an accurate description **Anorexia nervosa** For example; • The dual hypothalamic theory explains how the ventromedial hypothalamus acts to send messages of being full/satisfied (1) and the lateral hypothalamus is responsible for sending messages of hunger (1) so malfunction of the lateral hypothalamus may prevent an individual feeling hunger (1). **Unipolar depression** For example; • An underactivity of monoamine neurotransmitters such as serotonin can explain unipolar depression (1). Low serotonin fails to effectively regulate a person's mood and sleep functions (1) and leads to reduced norepinephrine, which is involved in regulating alertness and pleasure responses (1). **Look for other reasonable marking points.**	**(3)**

Question Number	Indicative Content	Mark
6	**AO1 (6 marks), AO3 (10 marks)** **Hans and Hiller (2013)** **AO1** • The meta-analysis into CBT dropout rates was conducted using 34 effectiveness studies from manual and electronic searches. • They excluded studies targeting specific populations such as elderly and only used ones from the adult population (18 to 65 years old). • They operationalised their search criteria using terms such as 'nonrandomised' in order to gather their secondary sources. • RCT studies were excluded as they were considered unrepresentative of routine clinical practice with patients suffering from unipolar depression. • Any studies that had included less than half of the usual 12 CBT sessions were excluded from selection as non-representative of CBT. • Drop-out was considered to be cessation of treatment before completion, but after attendance at one or more sessions. • Hans and Hiller were both trained in the coding protocol, Hans coded all studies and Hiller coded 20%, discrepancies were resolved through discussion. **AO3** • 34 studies can be considered a suitable sized sample for a meta-analysis reducing the impact of anomalies in data for CBT effectiveness. • However, some of the studies were poor quality with poor methodology which transpires into the findings of Hans and Hillers meta-analysis. • The use of studies dating back to 1987 means the data may not be a valid analysis of CBT in recent society as practices change over time. • Excluding targeted studies made their findings representative of the adult population undertaking CBT and increases generalisability. • File drawer effect was limited by seeking unpublished effectiveness studies from experts in the field of CBT. • Fully operationalising increased the validity of the data gathered to ensure it was accurate for the purpose and aims of the meta-analysis. • However, the use of secondary data about CBT may be flawed as the original purpose of the studies may not full match the research aims. • Excluding RCTs provided realistic findings about CBT effectiveness in day to day clinical practice so is more valid to real life CBT experiences. • Ensuring the studies included a representative number of CBT sessions increases the usefulness of the findings about CBT for clinical practice. • An objective measure of effectiveness through drop-out rates ensures they consistently measured effectiveness increasing construct validity. • Inter-rater reliability was high for the coding of the data gathered which helped eliminate researcher interpretation bias. **Look for other reasonable marking points.**	**(16)**

Question Number	Indicative Content	Mark
6	**AO1 (6 marks), AO3 (10 marks)** **Ma, Quinn and Liu (2014)** **AO1** • 538 university students (281 females and 257 males) with a mean age of 19.4 years old (SD=2.8). • Informed consent was obtained from all participants before completing the online questionnaires used to test social support. • 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), • The Zung Self-Rating Depression Scale (SDS) consists of 20-items for measuring a depressive disorder. • Participants completed an online survey that consisted of the CSES, MSPSS and SDS. The hyperlink to the survey was distributed using online forums. • The IP addresses of participants were monitored to ensure each participant did not take part more than once. **AO3** • 538 undergraduates are a large sample size which reduces the effect of anomalies skewing the data gathered. • The sample is not representative of the wider population, so findings about social support cannot be applied to non-undergraduates. • Gaining informed consent from the undergraduates gives the study good ethical considerations under the BPS code of conduct. • The questionnaires are standardised, which increases reliability of the data about social support as it can be retested. • The same questionnaire is completed by all participants making data comparable to test any difference in mediating effect of social support. • The SDS has a high internal consistency score of 0.92 (Cronbach's alpha) making it a valid assessment of depression. • Participants may have shown social desirability when completing the SDS questionnaire about depression which will reduce the validity of the data gathered as answers may not reflect true experiences. • The CSES is a previously tested assessment which increases internal validity as the CSES is a valid and consistent measure of traits. • Using online forums reduces the reliability of the data as Ma, Quan and Liu (2014) cannot be sure the participants completed this objectively. • They controlled for participant responses being included twice in their data which ensured their data was not skewed by replicated scores. **Look for other reasonable marking points.**	**(16)**

Question Number	Indicative Content	Mark
6	**AO1 (6 marks), AO3 (10 marks)** **Becker et al. (2014)** **AO1** • Fiji was selected as there was an extremely low prevalence of eating disorders and Nadroga had no television prior to mid-1995. • A cross-sectional method was used to sample two separate groups in 1995 prior to television and 1998, three years after television. • 63 respondents participated in 1995 (pre-television) and 65 respondents participated in 1998 (post-television). • They were selected from secondary school with a mean age of 17.3 years old in 1995 and 16.9 years old in 1998. • They completed a 26-item eating attitudes test (EAT-26) that included questions about binge eating and purging behaviour. • A semi-structured interview was conducted with any respondent reporting a binge eating or purging behaviour in their EAT-26responses. **AO3** • Becker et al. (2002) can be somewhat confident that their natural IV of the effect of television is what influenced eating behaviour in Nadroga. • The natural introduction of television allowed them to study the impact on eating which would have been unethical to do as an experiment. • The two samples were not directly comparable and there could have been participant variables between the two sets of girls responding. • 63 and 65 is a low sample size which means that anomalies in the data would have a stronger impact on the reliability of the results. • Only adolescent girls were included, reducing representativeness of the results and limits generalisability to others, such as boys or adults. • Sampling adolescent girls is useful for understanding eating behaviour as disorders are higher in females, and often begin in adolescence. • The EAT-26 is self-reported data which can be subject to social desirability and the findings about eating behaviour may not be valid. • However, there is internal/construct validity as the EAT-26 is a consistently used measure of eating behaviour giving validity. • Interview data can be subjective as the girls may perceive and explain their eating behaviours differently, so the data may be unreliable. • Using an additional interview increases validity as it can show how the television and eating behaviours affect the participant as a whole. **Look for other reasonable marking points.**	**(16)**

Question Number	Indicative Content	Mark
6	**AO1 (6 marks), AO3 (10 marks)** **Reichel et al. (2014)** **AO1** • 72 female adolescents and young adults, 36 with a primary diagnosis (based on ICD-10 criteria) of anorexia nervosa. • Participants with hearing or visual impairments, neurological disease or medication affecting a startle reflex were excluded from the study. • All participants gave written informed consent; additional written consent was obtained from legal guardians of minors. • 36 pictures were selected from a total of 8,000 body photographs to present to a pilot sample of 100 healthy volunteers for scoring. • Participants were seated in front of a screen to view the 52 images, counterbalanced in sets of 26 images from each sub category. • The picture in each set was shown for 12 seconds, pictures were randomised and intermingled with blank screen images. There was a 12 second interval between each picture/blank screen. • Startle reflex was measured as eye-blink response recorded from electomytographic activity (EMG) over the left orbicularis oculi muscle. **AO3** • 72 is a large enough sample to reduce the effect of anomalies on the data about the responses to the images they were shown. • All female participants is a gynocentric sample which limits the generalisability of findings to only females and not males. • Controlling for participant variables ensured the measure of startle reflex to body image was reliable and accurate. • Following the BPS ethical guidelines meant participants understood their right to withdraw, ensuring ethical considerations were upheld. • Scoring of images by healthy volunteers reduces researcher bias in the final selection of the 16 photographs for the study. • However, the initial sampling of the 36 photographs may have been subjective as researchers may have selected to meet their aim. • The standardised procedure allows for internal reliability as each participant viewed the same photographs of body image. • EMG is a scientific and objective measure of a startle response and eliminates researcher bias from the interpretation of the data. • Using scientific measures of startle reflex/heart rate ensured they used a valid measurement of the DV to determine the impact of the images. • There is a lack of validity as no qualitative data was gathered to allow participants to explain why they felt startled or not by the images. **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 (1 mark)** Credit **one** mark for identification of the correct answer. For example; • Line C is the modal measure of central tendency (1). **Reject all other answers.**	**(1)**

Question Number	Answer	Mark
7(b)	**AO2 (1 mark)** Credit **one** mark for stating a correct answer. For example; • Figure 1 shows a negative skewed distribution (1). **Look for other reasonable marking points.**	**(1)**

Question Number	Answer	Mark
8(a)	**AO2 (2 marks)** Credit **two** marks for fully operationalised directional (one-tailed) hypothesis Credit **one** mark for a partially operationalised directional (one-tailed) hypothesis For example; • There will be an increase in the number of boys aged 13-years old holding a door open for someone else after observing the modelled behaviour by the 16-year old boys than before observing the modelled behaviour by the 16-year old boys (2). • There will be more boys who hold a door open for someone else after observing the role model than before observing the role model (1). **Generic answers score 0 marks.** **Look for other reasonable marking points.**	**(2)**

Question Number	Answer	Mark
8(b)	**AO2 (1 mark)** Credit **one** mark for correct answer to three decimal places. • 19.643% (1). **Reject all other answers.**	**(1)**

Question Number	Answer	Mark
8(c)	**AO3 (1 mark)** Credit **one** mark for stating an accurate conclusion For example; • Adolescent boys do not reproduce the helping behaviour of 16-year old boys in school (1). **Generic answers score 0 marks.** **Look for other reasonable marking points.**	**(2)**

Question Number	Answer	Mark
8(d)	**AO1 (1 mark), AO2 (1 mark), AO3 (1 mark)** Credit **one** mark for identification of improvement to validity (AO1) Credit **one** mark for application of improvement to the investigation in relation to the scenario (AO2) Credit **one** mark for exemplification/justification of improvement to the investigation (AO3) For example; • Spiros could include a follow-up unstructured interview to gather qualitative data (1) to ask the boys to explain the reasons why they did or did not hold the door open for another person (1) which would give him a more in depth understanding of the motivation for the boy's helping behaviour that he observed (1). **Look for other reasonable marking points.**	**(3)**

Question Number	Answer	Mark
9	**AO1 (3 marks), AO3 (3 marks)** Credit **one** mark for each accurate point identified (AO1) Credit **one** mark for exemplification/justification of each point (AO3) For example; • Bartlett (1932) asked participants to recall the War of the Ghosts story which would not be considered a stressful or upsetting task to complete (1). This research meets the BPS ethical criteria as participants are be unlikely to have been harmed or distressed by taking part in the study (1).The use of case studies of brain damaged patients includes vulnerable participants, such as HM who was unable to make new long-term memories so would not remember agreeing to be part of a study (1) therefore he was unable to give fully informed consent or exercise his right to withdraw under BPS guidelines, so this research does not meet ethical guidelines (1). Saachi et al. (2007) used doctored photographs of real life events including Tiananmen Square in Beijing where people were killed during protests which could be upsetting (1). The use of pictures tries to minimise direct harm, but for participants who recalled the event, the images could be distressing, so the research attempted to follow ethical guidelines but may not fully meet them (1). **Look for other reasonable marking points.**	**(6)**

Question Number	Answer	Mark
10(a)	**AO2 (4 marks)** Credit **one** mark for correct completion of **difference** Credit **one** mark for correct completion of **ranked difference** Credit **one** mark for a correct calculation of **sum of both ranks** Credit **one** mark for a correct answer for **T=16.5**	**(4)**

Participant	Condition A	Condition B	Difference	Ranked Difference
A	15	16	**-1**	**3**
B	18	19	**-1**	**3**
C	19	20	**-1**	**3**
D	20	19	**1**	**3**
E	17	16	**1**	**3**
F	16	14	**2**	**6**
G	12	12	**0**	**-**
H	17	11	**6**	**9**
I	16	19	**-3**	**7.5**
J	14	11	**3**	**7.5**

- Sum of positive ranks = 28.5
- Sum of negative ranks = 16.5

Look for other reasonable marking points.

Question Number	Answer	Mark
10(b)	**AO2 (1 mark)** Credit **one** mark for an accurate statement For example; • The result is not significant at $P \leq 0.05$ for a one-tailed test where N=9 as the calculated value of T=16.5 exceeds the critical value of 8 (1). **Look for other reasonable marking points.**	**(1)**

Question Number	Indicative Content	Mark
11	**AO1 (4 marks), AO2 (4 marks)** **AO1** • Social psychology explains that behaviour such as prejudice can be a result of social situations such as people conforming to a group. • An authority figure can lead to obedient behaviour, so individuals may follow the views of a leader when expressing prejudice. • Reconstructive memory suggests we have a schema for events which could include prejudiced stereotypes of other people. • Schema includes the assimilation of new information, so exposure to new experiences and knowledge can change a schema. **AO2** • Minority influence can help reduce in-group favouritism as one person can express different views of the out-group and help reduce prejudice. • An authority figure could be used to encourage a less prejudiced view of out-groups and therefore reduce prejudice behaviours and beliefs. • Schema is developed over time, so it could be difficult to change a prejudiced schema of ethnic groups as each person has individual experiences. • Exposure to non-prejudiced information about social groups would become part of the schema for the 'other-race' character/ethnic groups, which could be used to reduce prejudice in society. **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
12	**AO1 (8 marks), AO3 (12 marks)** **AO1** • 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. • 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. • Nature and nurture are difficult to isolate when studying human behaviour. • Some psychological explanations include both nature and nurture in explaining human behaviour, for example schizophrenia has neurotransmitter and social explanations. **AO3** • 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. • 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. • Dobash and Dobash (1984) studied violence against women, finding that it often came about through sexual jealousy, so aggression ensures survival of genes. • 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. • 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. • 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 nurture. • 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 evaluation/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) 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)
Level 5	17–20 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 and presents a balanced response, leading to an effective nuanced and balanced conclusion. (AO3)