Mark Scheme (Results)

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GCE Psychology 9PS0/02

Paper 2: Applications of Psychology

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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.

SECTION A: Clinical Psychology

Question Number	Answer	Mark
1(a)	**AO1 (4 marks)** Up to four marks for how a description of ICD is used for mental health For example: • The ICD is a diagnostic system that includes all diseases, physical and mental used by clinicians to diagnose service users (1). If the service user presents with a possible mental health disorder the clinician would use the section that focuses on mental and behavioural disorders (1). For each mental health disorder, it gives a clinician the main features and the symptoms needed to make a diagnosis (1), for example, the ICD 10 states that paranoid schizophrenia is dominated by relatively stable, paranoid delusions, often with hallucinations (1). **Look for other reasonable marking points.**	**(4)**

Question Number	Answer	Mark
1(b)	**AO1 (1 mark), AO3 (1 mark)** One mark for identification of one strength (AO1). One mark for justification of one strength (AO3). For example: • Jakobsen et al. (2005) found there was good agreement in the diagnosis of schizophrenia between ICD 10 and other classification systems (1), showing that ICD 10 is reliable as it has consistent diagnoses with other classification systems (1). **Look for other reasonable marking points.**	**(2)**

Question Number	Answer	Mark
2 (a)	**AO2 (2 marks)** Up to two marks for a description of volunteer sampling in relation to the scenario. For example: • Motsi could post an advertisement online in both the UK and Japan asking for people to take part in her study on treatments of mental health disorders (1). She could then use the first 25 people from each country who responded to her advertisement and see what type of treatment they used (1). **Answers must relate to the scenario.** **Look for other reasonable marking points.** **Generic answers score 0 marks.**	**(2)**

Question Number	Answer	Mark
2(b)	**AO2 (1 mark), AO3 (1 mark)** One mark for identification of why a random sample may be better than volunteer sampole for Motsi's investigation (AO2). One mark for justification of why a random sample may be better than volunteer (AO3) For example: • A random sample means that everyone in Japan and the UK who has a mental health disorder has an equal chance of being a participant (1), so Motsi's sample should be more representative because a volunteer sample may consist of people who are more motivated to access treatments and therefore not typical (1). **Answers must relate to the scenario.** **Look for other reasonable marking points.** **Generic answers score 0 marks.**	**(2)**

Question Number	Answer	Mark
2 (c)	**AO2 (1 mark), AO3 (1 mark)** One mark for identification of one weakness in relation to the scenario (AO2). One mark for justification of one weakness (AO3). For example: • Motsi may ask each participant with a mental health disorder different questions depending on their answers about any treatment they have received (1), which may make it difficult for Motsi to analyse and compare her data to come to a conclusion about treatment choice in Japan and the UK (1). **Answers must relate to the scenario.** **Look for other reasonable marking points.** **Generic answers score 0 marks.**	**(2)**

Question Number	Answer	Mark
3 (a)	**AO2 (2 marks)** Up to two marks for a non-directional (two-tailed) alternate hypothesis. For example: • There will be a difference in the ability to complete domestic tasks as scored out of 32 between the two different mental disorders (2). • There will be a difference in the ability to complete domestic tasks between the different types of disorder (1). **Answers must relate to the scenario.** **Look for other reasonable marking points.** **Generic answers score 0 marks.**	**(2)**

Question Number	Answer	Mark
3(b)	**AO2 (4 marks)** One mark for squaring the values of the domestic tasks score minus the mean (20.8) for each score, $(x-\bar{x})^2$ **8.2^2, -8.8^2, 4.2^2, -2.8^2, -0.8^2** One mark for calculating the sum of these values = **170.8** One mark for dividing this by 4 (n-1) = **42.7** One mark for calculating the square root = **6.5** to one decimal place	**(4)**

Question Number	Indicative content	Mark
4	**AO1 (4 marks), AO3 (4 marks)** **AO1** • We aimed to find out if attitudes to mental health had changed over the past five years. • We found a current magazine article online and an online article about mental health from a newspaper that was published five years ago. • We created a tally chart of words that had positive meanings, such as "inspiring", and words that had negative meanings such as "aggressive". • We found that both the newspaper and magazine article had positive attitudes to mental health and there was no difference in the modern and older article. **AO3** • Because both articles focussed on well-known celebrities our content analysis may not have met our aim of looking at attitudes to mental health in general. • As both articles can be found online other people could carry out the same content analysis to see if they get similar results in regards to attitudes to mental health. • When we cross checked our results we found that there was little difference in the totals of positive and negative words so we had good inter-rater reliability. • Over the past few years there has been more of a focus on mental health, so if we had used an article from over fifteen years ago we might have found that attitudes to mental health had changed, reducing the credibility of our practical. **Answers must relate to their practical investigation from clinical psychology**	**(8)**

Level	Mark	Descriptor
AO1 (4 marks), AO3 (4 marks) Candidates must demonstrate an equal emphasis between knowledge and understanding vs evaluation/conclusion in their answer.		
	0	No rewardable material.
Level 1	1-2 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	3-4 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	5-6 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	7-8 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)

Question Number	Indicative content	Mark
5	**AO1 (4 marks), AO2 (4 marks)** **AO1** • The first antipsychotic drugs worked by blocking dopamine receptors in the brains of those with schizophrenia. • Atypical antipsychotics block both dopamine receptors and serotonin receptors and reduce both positive and negative symptoms for many patients. • Antipsychotics are often taken orally either as a tablet or as a liquid, or injected if the person with schizophrenia is unlikely to take their medication. • Antipsychotics should start to work within a couple of weeks, if they do not then the psychiatrist may prescribe another type of antipsychotic. **AO2** • If Émile takes a typical antipsychotic such as risperidone it should reduce her hallucinations such as when she sees ghosts. • Émile's symptoms such as thinking the government is spying on her should be reduced, and she should feel like going out with her friends more if she is given atypical antipsychotics. • As Émile has been resistant to some forms of biological treatment the psychiatrist may need to arrange for her to have antipsychotics administered through injection. • If Émile still thinks that the government is spying on her through her mobile phone the psychiatrist may try her on another type of antipsychotic to see if it is more effective.	**(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
6	**AO1 (8 marks), AO3 (12 marks)** **e.g. cognitive explanation** **AO1** • According to the cognitive explanation symptoms such as hallucinations are caused by sensory overload. • Schizophrenics do not filter out irrelevant information from the senses, creating cognitive overload. • Hallucinations can also be caused by thinking our inner voice is an external voice telling us what to do. • A poor link between memory and perception can lead to disorganised thinking as people will not know what to expect from a situation. • The cognitive explanation also says that whilst dopamine may cause symptoms such as delusions, the person with schizophrenia tries to make sense of them. • When a person tries to make sense of delusions they may then get other symptoms of schizophrenia such as disorganised thinking. • A person may feel paranoia if they ask other people to confirm a hallucination, and the other people cannot confirm it. • Delusions may be caused by an inability to process social situations appropriately, so leading to feelings of persecution. **AO3** • It could be that the sensory overload is due to having schizophrenia, not a cause of it, so reducing the credibility of the explanation. • It has been found, using PET scans (e.g. Butler et al., 2012), that there is less activity in the frontal lobes of those with schizophrenia, showing they are less likely to monitor information from the senses so disagreeing with the cognitive explanation. • McGuire et al. (1996) found that the temporal lobe is less active during hallucinations, so people with schizophrenia are less able to monitor their inner voice as the cognitive explanation states. • Carlsson et al. (2002) found that neurotransmitters such as glutamate cause symptoms such as hallucinations, so the	**(20)**

	cognitive explanation is not a full explanation of schizophrenia. • Dickson et al. (2018) found that adolescents at risk of developing schizophrenia had deficits in a variety of cognitive functions so suggesting they may be a cause of schizophrenia. • The cognitive explanation focuses on both nature, in the form of neurotransmitters and nurture, so it is a more complete explanation than the biological explanation. • The cognitive explanation ignores the impact of social class on the development of schizophrenia so may not fully explain the disorder. • Sitskoorn et al. (2004) found that relatives of schizophrenics had similar cognitive deficits, but they did not develop schizophrenia, meaning that other factors must also be involved. • The cognitive explanation has led to cognitive behavioural therapy for schizophrenics, which has some effectiveness suggesting the cause of schizophrenia is cognitive. • Cognitive behavioural therapy is less effective for symptoms such as lack of emotional expression, suggesting these symptoms may have another cause rather than cognitive.	

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)

SECTION B - Criminological Psychology

Question Number	Answer	Mark
7 (a)	**AO1 (2 marks)** One mark for statement of each finding of their chosen contemporary study. For example: Bradbury and Williams (2013) Finding one • They found that juries who had more white members were more likely to convict a Black defendant compared to juries that had more Black members (1). Finding two • Juries were more likely to convict a Black defendant of drug crimes compared to violent or property crimes (1). Valentine and Mesout (2009) Finding one • They found that the state anxiety score was higher for females at a mean of 52.8 compared to males who had a mean of 45.3 (1). Finding two • Participants who had high state anxiety were less likely to correctly identify the scary person out of a nine photograph line up (1). Howells et al. (2005) Finding one • Howells et al. (2005) found that there was a slight improvement in anger control from a mean of 20.7 to a mean of 22.2 after treatment (1). Finding two • There was a statistically significant difference in anger knowledge between the treatment group and the control group (1). **Look for other reasonable marking points.**	**(2)**

Question Number	Answer	Mark
7 (b)	**AO1 (1 mark), AO3 (1 mark)** One mark for identification of one strength in terms of reliability (AO1). One mark for justification of one strength in terms of reliability (AO3). For example: Bradbury and Williams (2013) • Bradbury and Williams (2013) obtained objective data in the form of 0 if the defendant was not convicted of a crime and 1 if the defendant was convicted of a crime (1), therefore other researchers can access the same cases and gather the results to check the data for consistency and reliability (1). Valentine and Mesout (2009) • The presentation of the photographs did not affect the identification of the scary person so reducing an extraneous variable (1), as the nine photographs for the identification were always presented in a row of four pictures and another row of five pictures (1) Howells et al. (2005) • Howells et al. (2005) used established scales to measure anger that had previously proven to have test-retest reliability (1), for example they used the Novaco anger scale to measure anger for the treatment group and the control group so if used again similar results would be found (1). **Look for other reasonable marking points.**	**(2)**

Question Number	Answer	Mark
8 (a)	**AO2 (3 marks)** Up to three marks for a description of risk management in relation to the scenario. For example: • Noah should ensure that the new treatment will not have any foreseeable adverse effects on the offender in his case study and any effects are less than the gain (1). Noah has to take measures to ensure that he is safe, and has an escape route should the offender become violent towards him (1). Noah should have insurance in place to cover any potential harm the new treatment may cause the offender or any other people involved, such as prison officers (1). **Look for other reasonable marking points.** **Answers must relate to the scenario** **Generic answers score 0 marks.**	**(3)**

Question Number	Answer	Mark
8 (b)	**AO2 (1 mark)** One mark for identification of the experimental/research design in relation to the scenario. For example: • Noah used a repeated measures design in his experiment on the effectiveness of the new treatment (1). **Look for other reasonable marking points.**	**(1)**

Question Number	Answer	Mark
8 (c)	**AO1 (1 mark), AO3 (1 mark)** One mark for identification of one reason (AO1). One mark for justification of the reason (AO3). For example: • Qualitative data gathers more detailed information such as reasons for offending compared to quantitative data (1), as qualitative data allows offenders to explain the underlying reasons about why they offend, rather than being restricted in their responses (1). **Look for other reasonable marking points.**	**(2)**

Question Number	Answer	Mark
8 (d)	**AO2 (1 mark), AO3 (1 mark)** One mark for identification of one weakness in relation to the scenario (AO2). One mark for justification of the weakness (AO3). For example: • Noah's study may lack validity if he states that the results of the treatment work on all criminal behaviour as he only had one offender (1), therefore the new treatment may not work on offenders who had committed different crimes so the results may not be valid for all crimes (1). **Look for other reasonable marking points.** **Answers must relate to the scenario** **Generic answers score 0 marks.**	**(2)**

Question Number	Indicative content	Mark
9	**AO1 (4 marks), AO2 (4 marks)** **AO1** • Criminal behaviour can be learnt in childhood through observing same sex role models. • According to the self-fulfilling prophecy people are given labels based on stereotypes. • Testosterone is a hormone and high levels are thought to increase aggression. • Damage to the prefrontal cortex leads to an inability to delay gratifying impulses. **AO2** • Peter may have developed his criminal behaviour as he observed his brother, who may be his role model, fighting and copied the aggressive behaviour. • As Peter lives in an area with a bad reputation he may have been given a label of anti-social as a child. • Peter is 17-years-old and has an increase in testosterone as he is in the adolescent stage of development, which may explain his increased aggression. • The sporting accident may have caused damage to Peter's prefrontal cortex, affecting his development so he can no longer stop his anti-social behaviour.	**(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
10	**AO1 (6 marks), AO2 (4 marks), AO3 (6 marks)** **AO1** • Planning needs to be carried out before the interview starts, including any special considerations for the interviewee. • Part of the planning process would be to ensure the correct equipment is available. • The interviewer should try and establish a rapport with the interviewee at the start of the process. • At the beginning if the interview the aims and objectives of the interview should be clearly explained. • If there is more than one interviewer the lead person should check the other interviewer does not have any more questions before finishing the process. • False information should not be used to gain a confession from a suspect if ethical interviewing techniques are being used. **AO2** • As the suspect is under 16-years-old Detective Inspector Leeming should ensure an appropriate adult can be present. • Detective Inspector Leeming should try to hide how upset she is about the crime from the suspect. • Detective Inspector Leeming needs to check the suspect has understood the purpose of the interview, and may need to explain in simpler terms due to the age of the suspect. • As no video footage of the incident has been found yet Detective Inspector Leeming should not say that there is recorded evidence of the crime. **AO3** • By 2010 70% of all police officers had been trained in ethical interview techniques, showing that the police forces must think it is an effective interview technique. • Pounds (2019) found that empathy was not always used appropriately within police interviews so the ethical interview may not be affected. • Walsh and Milne (2008) found that the use of ethical interview techniques gained more information from suspected benefit fraud cheats.	**(16)**

	• Ethical interviews take a long time to plan so may not be possible if interviews need to be conducted quickly in order to gain information. • As ethical interview techniques discard methods such as intimidation it leads to fewer false confessions, so saving the tax payers money. • Milne (2010) found that the only effect training in ethical interview techniques had was that the interviews were longer, so the training may not be effective in terms of the skills needed.	

Level	Mark	Descriptor
AO1 (6 marks), AO2 (4 marks), AO3 (6 marks) **Candidates must demonstrate an equal emphasis between knowledge and understanding vs evaluation/conclusion in their answer.** **Application to the context is capped at maximum 4 marks.**		
	0	No rewardable material.
Level 1	1-4 Marks	Demonstrates isolated elements of knowledge and understanding. (AO1) Provides little or no reference to relevant evidence from the context (scientific ideas, processes, techniques & procedures). (AO2) 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) Line(s) of argument occasionally supported through the application of relevant evidence from the context (scientific ideas, processes, techniques & procedures). (AO2) 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) Line(s) of argument supported by applying relevant evidence from the context (scientific ideas, processes, techniques & procedures). Might demonstrate the ability to integrate and synthesise relevant knowledge. (AO2) 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) Line(s) of argument supported throughout by sustained application of relevant evidence from the context (scientific ideas, processes, techniques or procedures). Demonstrates the ability to integrate and synthesise relevant knowledge. (AO2) Displays a well-developed and logical evaluation, containing logical chains of reasoning throughout. Demonstrates an awareness of competing arguments, presenting a balanced conclusion. (AO3)

Question Number	Answer	Mark
11 (a)	**AO1 (2 marks)** One mark for statement of each finding of their chosen contemporary study. For example: Cassibba et al. (2013): Finding one • Cassibba et al. (2013) found that 53% of the Italian nonclinical children were classified as having a type B attachment (1). Finding two • The most common type of attachment for clinical/at risk Italian children was an avoidant (type A) attachment (1). Gagnon-Oosterwaal et al. (2012): Finding one • Gagnon–Oosterwaal et al. (2012) found that 32.66% of internationally adopted children had a specific phobia compared to 7.3% of non-adopted children (1). Finding two • The adopted children who had a low weight to height ratio had higher self-reported scores for specific phobias, depression and conduct disorders (1). Li et al. (2013): Finding one • They found that higher quality infant-toddler care was associated with a higher quality cognitive score at 24 months old (1). Finding two • The quality of infant toddler care had no significant effect on memory or language at 54 months old (1). **Look for other reasonable marking points.**	**(2)**

Question Number	Answer	Mark
11 (b)	**AO1 (1 mark), AO3 (1 mark)** One mark for identification of one strength in terms of reliability (AO1). One mark for justification of the strength in terms of reliability (AO3). For example: Cassibba et al (2013): • Cassibba et al. (2013) only used studies that had used the strange situation procedure in their meta-analysis (1), therefore each study used the same method to measure attachment type so the results are not confounded using different measures of attachment (1). Gagnon-Oosterwaal et al. (2012): • Other researchers can access the same data on the physical development of the infants to check the data for consistency and reliability (1), as they gathered objective data in terms of height, weight and head circumference percentiles using North American norms (1). Li et al (2013): • They controlled the type of children used so that development at birth did not affect the results and become a confounding variable (1), because they used families who had full term healthy new-born children as their participants (1) **Look for other reasonable marking points.**	**(2)**

Question Number	Answer	Mark
12 (a)	**AO2 (3 marks)** Up to three marks for a description of participation and protection of the children in relation to the scenario. For example: • Noah should ensure that the parents have given fully informed consent and know exactly what behaviours he will be observing in the day care setting (1). The children should not get distressed by his presence at the day care setting, and if a child does get upset he must stop his observation (1). If the child's parents no longer want Noah to continue observing the child then they can withdraw the child from his investigation (1). **Look for other reasonable marking points.** **Answers must relate to the scenario** **Generic answers score 0 marks.**	**(3)**

Question Number	Answer	Mark
12 (b)	**AO2 (1 mark)** One mark for identification of the experimental/research design in relation to the scenario. For example: • Noah used a repeated measures design in his observation on the influence of day care (1). **Look for other reasonable marking points.**	**(1)**

Question Number	Answer	Mark
12 (c)	**AO1 (1 mark), AO3 (1 mark)** One mark for identification of one reason (AO1). One mark for justification of the reason (AO3). For example: • Qualitative data gathers more detailed information such as the changes in the child's behaviour compared to quantitative data (1), as qualitative data allows researchers to write extensive notes on the differences in the child's emotional behaviour, rather than being restricted in their data collection (1). **Look for other reasonable marking points.**	**(2)**

Question Number	Answer	Mark
12 (d)	**AO2 (1 mark), AO3 (1 mark)** One mark for identification of one weakness in relation to the scenario (AO2). One mark for justification of the weakness (AO3). For example: • Noah's study may lack validity as he only studied the effects of day care on one child at one nursery (1), therefore the effects of day care may be different for children at a different type of day care that may be of a different quality (1). **Look for other reasonable marking points.** **Answers must relate to the scenario** **Generic answers score 0 marks.**	**(2)**

Question Number	Indicative content	Mark
13	**AO1 (4 marks), AO2 (4 marks)** **AO1** • Autism is a developmental disorder that occurs more in boys than in girls. • The EPPE study (2004) found that good quality day care helped a child's social development. • Children who have a sensitively responsive mother are more likely to form a secure attachment to their mothers. • Deprivation is a short term separation from an attachment figure and can cause negative effects on the child's internal working model. **AO2** • Peter may be autistic because he cannot interact successfully with other children at school as he may not be able to understand their point of view. • Peter's mother may not have provided high quality activities for Peter which is why he finds it hard to interact with other children. • As his mother found it hard work at times to look after him she may not always have responded to Peter immediately and so he may not be securely attached. • When Peter was in hospital he may have suffered deprivation which may mean the break in attachment affects how he relates to other people	**(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
14	**AO1 (6 marks), AO2 (4 marks), AO3 (6 marks)** **AO1** • A securely attached child will be distressed when left with a stranger and go to their mother for comfort when she returns. • Mothers of securely attached children respond sensitively to their child's needs. • Type A attachment leads to children not being upset when left alone, and are not bothered when the mother returns. • Children who are anxious resistant tend to stay close to their mother rather than explore their surroundings. • Anxious resistant children get very upset when the mother leaves but reject any comfort from her when she returns. • Children who are anxious avoidant often do not have their needs met by their caregiver. **AO2** • The children who are happy to meet their mothers at the end of the day show a secure attachment as they go to her for comfort. • The mothers of those who are happy to see them probably interact with their children in a way that meets the needs of the child at that time. • Anxious avoidant children at the nursery will not display any emotion when they are picked up from the nursery as they are used to an irrelevant response from their mother. • Those children that Mrs Leeming sees unhappy and running away from their mother when they are picked up may be anxious resistant. **AO3** • Ainsworth's strange situation study (1970) found that there were three types of attachment, and that children in each type reacted differently to the strange situation. • A type D attachment has been identified after Ainsworth's work therefore her findings lack validity. • Van IJzendoorn and Kroonenberg (1988) found that the three types of attachment were represented in a variety of cultures including non-western cultures.	**(16)**

	• The behaviour shown by the child in the strange situation may be due to their temperament rather than attachment style. • Parents can be taught how to respond in an appropriate way so that the child can become securely attached, so knowing the attachment types has relevance to society. • Ainsworth's work on attachment types ignored the influence of other people such as carers and peers on attachment, so may not show how the child is attached to other significant people.	

Level	Mark	Descriptor
AO1 (6 marks), AO2 (4 marks), AO3 (6 marks) Candidates must demonstrate an equal emphasis between knowledge and understanding vs evaluation/conclusion in their answer. Application to the context is capped at maximum 4 marks.		
	0	No rewardable material.
Level 1	1-4 Marks	Demonstrates isolated elements of knowledge and understanding. (AO1) Provides little or no reference to relevant evidence from the context (scientific ideas, processes, techniques & procedures). (AO2) 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) Line(s) of argument occasionally supported through the application of relevant evidence from the context (scientific ideas, processes, techniques & procedures). (AO2) 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) Line(s) of argument supported by applying relevant evidence from the context (scientific ideas, processes, techniques & procedures). Might demonstrate the ability to integrate and synthesise relevant knowledge. (AO2) 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) Line(s) of argument supported throughout by sustained application of relevant evidence from the context (scientific ideas, processes, techniques or procedures). Demonstrates the ability to integrate and synthesise relevant knowledge. (AO2) Displays a well-developed and logical evaluation, containing logical chains of reasoning throughout. Demonstrates an awareness of competing arguments, presenting a balanced conclusion. (AO3)

Question Number	Answer	Mark
15 (a)	**AO1 (2 marks)** One mark for statement of each finding of their chosen contemporary study. For example: Mundt et al. (2012): Finding one • They found that 13% of the participants who dropped out between wave 1 and wave 2 were weekly alcohol users (1). Finding two • The frequency that parents drank alcohol was not significantly associated with alcohol consumption in adolescence (1). Dixit et al. (2012): Finding one • 86.6% of the participants denied ever having an alcoholic drink, with 5.07% saying they currently drunk alcohol (1). Finding two • Participants that were considered well paid professionals were less likely to use alcohol compared to unemployed participants (1). Pengpid et al. (2012): Finding one • Both the treatment group and the control group had a significant reduction in heavy drinking scores over time (1). Finding two • Harmful alcohol use for the treatment group dropped from a mean of 43 to a mean of 5 at 6 months (1). **Look for other reasonable marking points.**	**(2)**

Question Number	Answer	Mark
15 (b)	**AO1 (1 mark), AO3 (1 mark)** One mark for identification of one strength in terms of reliability (AO1). One mark for justification of the strength in terms of reliability (AO3). For example: Mundt et al. (2012): • Participant variables did not affect the results about alcohol consumption between wave 1 and 2 so increasing reliability (1), as 14,738 of the original participants were used in wave 2 making it a repeated measures design (1). Dixit et al. (2012): • The results on alcohol consumption are not affected by the researchers picking participants who would support their hypotheses so increasing reliability (1), as a maximum of two participants were taken from each household to stop any bias in the type of households participants came from (1). Pengpid et al (2012): • There was no selection bias in who had the treatment improving the reliability of the results as the process can be repeated with another sample (1), because patients were randomly assigned to the control group or the treatment group using numbered sealed envelopes (1). **Look for other reasonable marking points.**	**(2)**

Question Number	Answer	Mark
16 (a)	**AO2 (3 marks)** Up to three marks for a description of ethical issues of using rats in relation to the scenario. For example: • Noah should only use the smallest number of rats he needs to gather his data about the effects of the new drug therapy for heroin addicts, so that no more rats than necessary suffer (1). Noah should ensure that if the new drug therapy for heroin addicts has an adverse effect on the rats that they are humanely killed if they cannot recover (1). Noah would have to make sure the housing and food for the rats is suitable when he is not using a new drug treatment (1). **Look for other reasonable marking points.** **Answers must relate to the scenario** **Generic answers score 0 marks.**	**(3)**

Question Number	Answer	Mark
16 (b)	**AO2 (1 mark)** One mark for identification of the experimental/research design in relation to the scenario. For example: • Noah used a repeated measures design in his experiment on the effectiveness of the new drug treatment (1). **Look for other reasonable marking points.**	**(1)**

Question Number	Answer	Mark
16 (c)	**AO1 (1 mark), AO3 (1 mark)** One mark for identification of one reason (AO1). One mark for justification of the reason (AO3). For example: • Qualitative data gathers more detailed information such as reasons for drug taking compared to quantitative data (1), as qualitative data allows drug addicts to explain the underlying reasons about why they take drugs, rather than being restricted in their responses (1). **Look for other reasonable marking points.**	**(2)**

Question Number	Answer	Mark
16 (d)	**AO2 (1 mark), AO3 (1 mark)** One mark for identification of one weakness in relation to the scenario (AO2). One mark for justification of the weakness (AO3). For example: • Noah's study may lack validity as he only studied the effects of the new drug treatment on one heroin addict from one addiction centre (1), therefore the effects of the new drug treatment may be different for heroin addicts at a different stage of addiction or poly drug users (1). **Look for other reasonable marking points.** **Answers must relate to the scenario** **Generic answers score 0 marks.**	**(2)**

Question Number	Indicative content	Mark
17	**AO1 (4 marks), AO2 (4 marks)** **AO1** • Children will observe and imitate behaviours from role models such as their parents. • Social identity theory says that when we identify with a group we take on their norms and values. • Behaviours that are reinforced are more likely to be repeated in order to receive the reinforcement again. • According to classical conditioning anything associated with drugs can lead to a reflexive response so more drugs are needed to achieve the same effect. **AO2** • As Peter saw his mother drinking throughout his childhood he will imitate this behaviour and become addicted to alcohol. • In order to identify with his group of friends Peter has taken on the norm of drinking alcohol. • Peter was positively reinforced by feeling more confident when at parties so this has led to his alcohol addiction. • Peter has associated going to parties with alcohol so he now feels he needs to drink more alcohol at parties to have the same effect.	**(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
18	**AO1 (6 marks), AO2 (4 marks), AO3 (6 marks)** **AO1** • Aversion therapy is based on classical conditioning and aims to pair nicotine with an unpleasant response. • Those addicted to nicotine are asked to rapid smoke, inhaling a cigarette every few seconds for a period of time. • Smoking rapidly causes a person to feel sick. • The addict associates the feeling sick with the inhaling of the cigarette. • After several pairings the addict will feel sick when they see a cigarette and so avoid smoking. • The addicts may be given silver acetate which leaves an unpleasant taste when a cigarette is smoked. **AO2** • The therapist will give the small group of patients a packet of cigarettes and ask them to rapidly smoke the cigarettes. • The small group of nicotine addicts will be made to carry on smoking even if they feel sick. • After a few sessions with the therapist the small group of nicotine addicts will feel sick when they see a cigarette. • When the Mr Leeming's patients associate cigarettes with feeling sick they will avoid smoking so that they will not feel sick. **AO3** • Danaher (1977) used rapid smoking to treat smokes and found that it was effective for some smokers such as non-married couples but it wasn't effective for everyone. • Russell et al. (1976) found that using electric shocks as an aversive stimulus led to 65% of the smokers stopping smoking. • Aversion therapy does not address the psychological reasons why nicotine addiction occurred so it may not work long term. • Aversion therapy stops the person craving nicotine so they can then access other therapies to gain insight into the reasons for their addiction. • Nicotine addiction may return after aversion therapy if the patients tries a cigarette and realises they do not feel sick, so it may not be effective long term.	**(16)**

	• Aversion therapy can be a quicker and cheaper treatment than other therapies so nicotine addicts may prefer it.	

Level	Mark	Descriptor
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	0	No rewardable material.
Level 1	1-4 Marks	Demonstrates isolated elements of knowledge and understanding. (AO1) Provides little or no reference to relevant evidence from the context (scientific ideas, processes, techniques & procedures). (AO2) 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) Line(s) of argument occasionally supported through the application of relevant evidence from the context (scientific ideas, processes, techniques & procedures). (AO2) 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) Line(s) of argument supported by applying relevant evidence from the context (scientific ideas, processes, techniques & procedures). Might demonstrate the ability to integrate and synthesise relevant knowledge. (AO2) 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) Line(s) of argument supported throughout by sustained application of relevant evidence from the context (scientific ideas, processes, techniques or procedures). Demonstrates the ability to integrate and synthesise relevant knowledge. (AO2) Displays a well-developed and logical evaluation, containing logical chains of reasoning throughout. Demonstrates an awareness of competing arguments, presenting a balanced conclusion. (AO3)