

Mark Scheme (Results)

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Pearson Edexcel

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

Total for Section A - 54 marks

Question Number	Answer	Mark
1(a)	AO2 (1 mark)	(1)
	One mark for a definition of dysfunction in relation to the scenario.	
	For example: • Dysfunction occurs when a mental disorder means that Lena cannot successfully carry out everyday life as she cannot go to work (1).	
	Look for other reasonable marking points.	
	Generic answers score 0 marks.	
	Answers must relate to the scenario.	

Question Number	Answer	Mark
	AO2 (2 marks), AO3 (2 marks) One mark for identification of each weakness in relation to scenario (AO2). One mark for justification of each weakness (AO3). For example: • There is subjectivity when deciding what is dysfunctional so Lena's psychiatrist will base the diagnosis on their own professional opinion (1), which means that not going to work may be classified as dysfunctional by one clinician and not another, affecting reliability of Lena's diagnosis (1). • Using dysfunction on its own does not take into account the reasons for the dysfunction such as not going out with friends (1), so Lena may not go out with friends as they may now have different interests, this does not mean she has a mental disorder (1). Look for other reasonable marking points. Generic answers score 0 marks. Answers must relate to the scenario.	(4)
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Question Number	Answer	Mark
2 (a)	AO2 (3 marks)	(3)
	Up to three marks for a description in relation to the scenario.	
	For example:	
	 Vihaan may decide to use research articles on the psychological therapy from a specific date, such as in the past five years (1). Vihaan should decide which mental disorders, such as schizophrenia, PTSD and bipolar disorder, he wants to research before he starts his meta- analysis (1). Once Vihaan has gathered the research articles, he should combine the results and analyse them to see how effective the psychological therapy is (1). 	
	Look for other reasonable marking points.	
	Generic answers score 0 marks.	
	Answers must relate to the scenario.	

AO3 (2 marks)	(2)
One mark per explicit comparison. The answer must include at least one similarity and one difference otherwise max. one mark.	
For example:	
 Primary data is collected by the researcher such as treatment for schizophrenia whilst secondary data has already been collected by other researchers (1). Both primary and secondary data can be quantitative for example the number of hallucinations after treatment and can be analysed using statistical tests (1). Look for other reasonable marking points. 	
i C	 nclude at least one similarity and one difference otherwise max. one mark. For example: Primary data is collected by the researcher such as treatment for schizophrenia whilst secondary data has already been collected by other researchers (1). Both primary and secondary data can be quantitative for example the number of hallucinations after treatment and can be analysed using statistical tests (1).

Question Number	Answer	Mark
3 (a)	AO1 (4 marks)	(4)
	Up to four marks for a description of Rosenhan's (1973) results.	
	For example: • Rosenhan found that 11 out of the 12 hospitals admitted the pseudopatients with a diagnosis of schizophrenia (1). The average time a pseudo patient stayed in hospital was 19 days, it ranged from 7 to 52 days (1). In three cases the pseudo patients writing behaviour was seen as part of their pathological behaviour by nurses (1). In his second experiment he found that 41 patients were said to be pseudo patients by at least one member of staff (1).	
	Look for other reasonable marking points.	

Question Number	Answer	Mark
Number 3(b)	AO1 (1 mark), AO3 (1 mark) One mark for identification of a strength (AO1). One mark for justification of the strength (AO3). For example: • Rosenhan used quantitative, objective data in the form of number of days spent in the hospital (1), this means that other researchers could conduct a similar study and compare the results to see if they are similar to test the reliability of Rosenhan's results on newer versions of DSM (1).	(2)
	Look for other reasonable marking points.	

Question Number	Answer	Mark
3(c)	AO1 (1 mark), AO3 (1 mark)	(2)
	One mark for identification of an improvement (AO1). One mark for justification of the improvement (AO3).	
	For example: • Rosenhan could have used a range of hospitals across all of America rather than just the east and west coast (1) which would have shown that the results were representative of all states within America and how they treat patients in mental institutions (1).	
	Look for other reasonable marking points.	

Question Number	Indicative content	Mark
4	 AO1 (4 marks), AO2 (4 marks) For example: Key question: Is the use of drugs an effective treatment for mental disorders? AO1 A lot of mental disorders are treated with drugs whilst the patients may be waiting for psychotherapy. In 2018 over 70.9 million items were prescribed for mental disorders such as depression by the NHS in England. Whilst prescriptions are not free the cost of antidepressants to the NHS up to October in 2018 was £672.5 million. The use of medication for mental disorders can keep people in work so that the government receives taxes and does not have to pay out some benefits. 	(8)
	 Drug treatments work by changing the levels of neurotransmitters in the brain to alleviate the symptoms of the mental disorder. Drugs may reduce the level of the neurotransmitters in the brain, such as antipsychotics reducing the levels of dopamine. When drugs are used to reduce the level of neurotransmitter, they may block the receptors so neurotransmitters such as dopamine cannot bind to the receptors. Other drugs, such as anti-depressants increase the level of the neurotransmitter by stopping the reuptake of serotonin for example. Look for other reasonable marking points.	
	Look for other reasonable marking points.	

Level	Mark	Descriptor			
Candid	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
Number 5	 AO1 (4 marks), AO3 (4 marks) AO1 Longitudinal research investigates the same participants with mental health over a long period of time, often months or years. A longitudinal design can collect data in various ways, such as observations of those with mental health as well as interviewing them over time. The same tools for data collection will be used throughout various points in the study e.g. Vallentine et al. (2010) took three measures of ward placement. Longitudinal research can collect quantitative 	(8)
	 data such as measurements on the Beck depression inventory or qualitative data over a period of time. AO3 As they take place over a long period of time the development of the mental health issue can be tracked which can give more valid data than cross sectional studies. As the same participants are studied over a period of time participant variables such as the effect of their home life on their mental health are controlled for, increasing reliability. As the participants and researchers would be in regular contact, the researchers may become too emotionally involved with the participants which may lead bias towards how a mental disorder is progressing. Participants with severe mental illness may drop out of the study if it is over a long period of time so the sample may become biased towards a specific severity of mental ill health. 	
	Look for other reasonable marking points.	

Level	Mark	Descriptor		
Candid	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
6	AO1 (8 marks), AO2 (4 marks), AO3 (8 marks)	(20)
6	 AO1 (8 marks), AO2 (4 marks), AO3 (8 marks) AO1 If the diagnosis of a mental health disorder is reliable then the same person will get the same diagnosis from two clinicians. Intra rater reliability is when the same physician diagnoses the same patient with the same symptoms as having the same disorder at two different points in time. A diagnosis is reliable if two different classification systems diagnose the same disorder for the same patient. Validity refers to whether the classification systems accurately measure the mental disorder they say they are measuring. If a classification system is not reliable then it cannot be a valid measurement of mental disorders. When a diagnosis can be used to accurately predict the way the mental disorder will develop then it is said to have predictive validity. If a psychiatrist diagnoses a mental disorder using a classification system and suggests a treatment based on that diagnosis that works the classification system can be said to be valid. A valid classification system includes symptoms that are operationalised and measurable such as people with schizophrenia having to have two or more symptoms over a month. 	(20)
	 Alba's symptoms such as losing interest in everyday life could apply to more than one mental health disorder so her diagnosis may not be reliable. If a second psychiatrist agrees with the diagnosis of schizophrenia, then the diagnosis is reliable which should reassure Alba's mother. By using two psychiatrists to diagnose Alba, if they have a reliable diagnosis of schizophrenia then it is more likely to be valid. If the diagnosis of schizophrenia is valid then Alba's psychiatrist should be able to tell her mother how her schizophrenia will develop over the coming months. 	
	 Morey (2019) found that DSM 5 was more reliable than DSM IV in diagnosing borderline 	

- personality disorder so diagnosis of mental health disorders should be reliable if DSM V was used.
- Diagnosis can be affected by what the patients tell the psychiatrist, so if a patient tells two psychiatrists different things this may affect the reliability of their diagnosis.
- DSM 5 includes section 3 which advises cultural issues should be taken into account so these should have less of an effect on the reliability of diagnosis.
- DSM 5 had a concordance rate of 0.46 for schizophrenia according to Reiger et al. (2013) so the reliability of diagnosis of mental health disorders such as schizophrenia may be questioned.
- Rosenhan (1973) found that DSM was not valid as it could not tell that the pseudo patients did not have a mental health disorder so diagnosis of schizophrenia may not be valid.
- Lee et al. (2006) found that the diagnosis of ADHD had concurrent validity when using DSM and other measures such as questionnaire data, so diagnosis may be valid.
- Using two different classification systems to test for concurrent validity assumes one of the systems is valid when neither may be valid, so affecting the validity of diagnosis.
- Stinchfield et al. (2015) found that DSM 5 led to fewer false negatives than DSM IV when diagnosing gambling disorder suggesting classification systems are valid.

Look for other reasonable marking points.

Level	Mark	Descriptor			
Cand	AO1 (8 marks), AO2 (4 marks), AO3 (8 marks) Candidates must demonstrate an equal emphasis between knowledge and understanding vs judgement/conclusion in their answer.				
	Application to the scenario 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 and procedures). (AO2)			
		A judgement/decision 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	Demonstrates mostly accurate knowledge and understanding. (AO1)			
	Marks	Line(s) of argument occasionally supported through the application of relevant evidence from the context (scientific ideas, processes, techniques and procedures). (AO2)			
		Candidates will produce statements with some development in the form of mostly accurate and relevant factual material leading to a judgement/decision being presented. Candidates will demonstrate a grasp of competing arguments but response may be imbalanced. (AO3)			
Level 3	9-12	Demonstrates accurate knowledge and understanding. (AO1)			
	Marks	Line(s) of argument supported by applying relevant evidence from the context (scientific ideas, processes, techniques and procedures). Might demonstrate the ability to integrate and synthesise relevant knowledge. (AO2)			
		Displays a mostly developed and logical argument, containing mostly coherent chains of reasoning. Demonstrates an awareness of competing arguments, presenting a judgement/decision which 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 throughout the skills of integrating and synthesising relevant knowledge with consistent linkages to psychological concepts and/or ideas. (AO2)			
		Displays a well-developed and logical argument, containing logical chains of reasoning throughout. Demonstrates an awareness of competing arguments and presents a balanced response, leading to a balanced judgement/decision. (AO3)			
Level 5	17-20 Marks	Demonstrates accurate and comprehensive 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 consistently the skills of			

integrating and synthesising relevant knowledge with thorough,
accurate linkages to psychological concepts and/or ideas. (AO2)
Displays a well-developed and logical argument, containing logical
chains of reasoning throughout. Demonstrates a full awareness of
competing arguments and presents a fully balanced response, leading
to an effective nuanced and balanced judgement/decision. (AO3)

Section B.
Criminological psychology.

Question Number	Answer	Mark
7 (a)	AO2 (2 marks), AO3 (2 marks)	(4)
	One mark for identification of one strength and one weakness (AO2). One mark for justification of one strength and one weakness (AO3).	
	For example:	
	 As Alexei used an opportunity sample it would not take him a long time to gather his participants for his study on jury decision making (1), as the participants were readily available as they were working at the local business on the day he conducted his investigation. (1). 	
	 Weakness The participants that Alexei used for his jury decision making investigation were from a local business so they may not be representative of juries (1), as they may regularly wear suits so could have a negative bias towards people in casual clothes (1). 	
	Answers must relate to the scenario.	
	Look for other reasonable marking points.	
	Generic answers score 0 marks.	

Question Number	Answer	Mark
7 (b)	AO2 (1 mark)	(1)
	One mark for correct calculation of the mean for condition A. • 4	

Answer	Mark
AO2 (1 mark)	(1)
One mark for correct calculation of the median for condition B.	
• 8.	
	AO2 (1 mark) One mark for correct calculation of the median for condition B.

Question Number	Answer	Mark
7 (d)	AO2 (1 mark)	(1)
	One mark for accurate determination of whether the results are significant.	
	For example: • There is a significant difference between the number of months given to the defendant who was wearing a smart suit or wearing casual clothes as the calculated value (4.5) is less than the critical value (5) (1). Look for other reasonable marking points.	

Question Number	Answer	Mark
7 (e)	AO2 (1 mark), AO3 (1 mark)	(2)
	One mark for identification of an improvement in relation to the scenario (AO2). One mark for justification of the improvement (AO3).	
	 Alexei could use participants from a variety of businesses from locations other than his local area (1) which would be more representative of a real jury which uses people from a wider area and different backgrounds so the results would be more generalisable (1). 	
	Answers must relate to the scenario.	
	Look for other reasonable marking points.	
	Generic answers score 0 marks.	

Question Number	Answer	Mark
Number 8	AO1 (3 marks) Up to three marks for description of one personality theory. For example: • Eysenck said biological factors can affect personality and cause a predisposition towards criminal or anti-social behaviour (1). The reticular activating system of extroverts leads to under arousal so extroverts may engage in anti-social behaviour to increase their arousal (1). The sympathetic systems of the autonomic nervous system may be more active for longer, leading to impulsive behaviour which may be anti-social or	(3)
	criminal (1). Look for other reasonable marking points.	

Question Number	Indicative content	Mark
9	 AO1 (4 marks), AO2 (4 marks) AO1 The amygdala processes information from our senses and determines how we respond to that information. The amygdala can trigger the flight or fight response when we either run away from the situation or stay and fight. When it is activated the amygdala over rides the rational part of our brain so we are less likely to think in a rational manner. Damage to the amygdala can lead to an individual being unable to prevent themselves acting spontaneously in an aggressive way. 	(8)
	 Jekaterina may have processed information from her environment as threatening due to damage to her amygdala, which is why she starts fights when she is out. When her amygdala is activated Jekaterina goes into the fight mode which explains why she hit another person when she was out with her new friends due to an increase in adrenaline. Jekaterina does not think of the consequences of her actions, such as being arrested by the police because her damaged amygdala may be overactive. Her new friends could be more aggressive and Jekaterina may be copying her aggressive behaviour from them. 	
	Look for other reasonable marking points.	

Level	Mark	Descriptor			
Candio	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)	(16)
	 Witnesses to crimes tend to focus on the weapon if there is one involved as it may cause harm to the witness. Our attention is limited so when witnesses focus on weapons involved in crime they pay less attention to other details. The presence of a weapon can cause emotional arousal that means witnesses are focussed on the weapon rather than what the perpetrator was saying or wearing. Eye witness testimony can be influenced by information they heard after the incident. Eye witnesses may use their schemas of crimes to reconstruct the event so that it makes sense when they recall it. If the event is discussed with other witnesses and two witnesses think they saw something that did not happen this can reinforce their error and make it more likely to be remembered as happening. 	
	 If Denis automatically kept his attention on the gun, then he would not have looked at other details such as what the robber looked like. Due to the increase in stress that Denis experienced his memory for the robbery would have declined so he could not identify the robber from the photographs. Angela may have reconstructed the robbery based on her schemas of a robbery that she has developed from watching police dramas. When Angela discussed the robbery with another witness and they both thought the robber had a knife this would have reinforced her inaccurate memory of the type of weapon used. 	
	 Steblay (1992) found when reviewing 19 tests when a weapon was present there was lower accuracy when asked to identify the perpetrator so this may explain why Denis could not accurately identify the robber. Pickel (1999) found that it was the unusualness of the weapon that affected eye witness testimony rather than the presence of a weapon, 	

- as Denis would not have expected to see a gun at the bank it may have affected his memory.
- A lot of the research on weapon focus involves photographs or videos so they do not have the same emotional impact as a real robbery so the results may not apply to Denis.
- Loftus and Palmer (1974) found that changing the verb from smashed to contacted influenced the participants estimated speed, showing post event information may influence Angela's memory.
- Yuille and Cutshall (1986) found that the memory of witnesses to a real crime was still accurate several months after the incident, so post event information may not have had an effect on Angela misidentifying the type of weapon used.
- Allport and Postman (1947) found participants did reconstruct their memory of a picture, so the white man was no longer the perpetrator holding the knife, showing that Angela may have reconstructed her memory of the robbery based on her schemas.

Level	Mark	Descriptor			
Candi	A01 (6 marks), A02 (4 marks), A03 (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)			

Child Psychology

Question Number	Answer	Mark
11 (a)	AO2 (2 marks), AO3 (2 marks)	(4)
	One mark for identification of one strength and one weakness (AO2). One mark for justification of one strength and one weakness (AO3).	
	For example:	
	 As Alexei used an opportunity sample it would not take him a long time to gather his participants for his study on children sharing toys compared to random sampling (1), as the participants were readily available as they were at a local day care centre and from families he knew (1). 	
	 Weakness The participants that Alexei used for his observation on children sharing their toys were from one area so they may not be representative of all children (1), as children from different areas and backgrounds may share their toys more or less, so this could affect Alexei's results (1). 	
	Answers must relate to the scenario.	
	Look for other reasonable marking points.	
	Generic answers score 0 marks.	

Answer	Mark
AO2 (1 mark)	(1)
One mark for correct calculation of the mean for condition A.	
• 4	
	AO2 (1 mark) One mark for correct calculation of the mean for condition A.

Question Number	Answer	Mark
11 (c)	AO2 (1 mark)	(1)
	One mark for correct calculation of the median for condition B.	
	• 8	

Question Number	Answer	Mark
11 (d)	AO2 (1 mark)	(1)
	One mark for accurate determination of whether the results are significant.	
	For example: • There is a significant difference in sharing toys between the children in day care and the children at home as the calculated value (4.5) is less than the critical value (5) (1).	
	Look for other reasonable marking points.	

Question Number	Answer	Mark
11 (e)	AO2 (1 mark), AO3 (1 mark)	(2)
	One mark for identification of one improvement in relation to the scenario (AO2). One mark for justification of one improvement (AO3).	
	For example: • Alexei could have used children who attended day care and also observed the same children at home (1), so individual differences such as whether parents encourage children to share, would not have affected Alexei's results (1).	
	Answers must relate to the scenario.	
	Look for other reasonable marking points.	
	Generic answers score 0 marks.	

Question Number	Answer	Mark
12	AO1 (3 marks) Up to three marks for a description of one biological	(3)
	explanation	
	 The genetic explanation of autism explains that a variety of genes can interact and affect the development of the brain (1). It is thought that the proteins produced by the genes lead to more neurons and overgrowth of those neurons in the cortex (1). One of the genes is the ADNP gene, which controls the activity of other genes thought to be involved in autism (1). Look for other reasonable marking points. 	

Question Number	Indicative content	Mark
13	 AO1 (4 marks), AO2 (4 marks) Bowlby stated that children have an innate need to form an attachment with one person who is the main caregiver. Babies who have a strong attachment are not afraid to explore their environment as the attachment figure provides a secure base. If an attachment is broken within the critical period, it can lead to long term effects such as delinquency. Separation anxiety occurs when the child is not with the parent, and acts as a survival mechanism so the child is not left alone for too long. 	(8)
	 Most of the children at Jekaterina's health centre have already formed an emotional bond with a parent, fulfilling their innate need for an attachment. The parent acts as a secure base for the children to explore the toys in the practice room as they have a secure attachment with the parent. The five-year-old had their attachment broken at three months old which may explain why they often hit other children as the five-year old may show signs of delinquency. The children who cry in the practice room when they cannot see their parent are showing separation anxiety. 	
	Look for other reasonable marking points.	

Level	Mark	Descriptor		
Candio	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)	(16)
	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 they 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 mother/father at the end of the day show a secure attachment. The parents 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/father. Those children that Mrs Smythe sees getting upset when they left at the nursery up may be anxious resistant. 	
	 Ainsworth's strange situation study found that there were three types of attachment, and that children in each type reacted differently to the strange situation so giving the theory credibility. 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. 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 on attachment, such as carers and peers, so it may not be relevant to all children.

Look for other reasonable marking points.

Le vel	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)	

Health Psychology

Question Number	Answer	Mark
15 (a)	AO2 (2 marks), AO3 (2 marks)	(4)
	One mark for identification of each strength / weakness in relation to the scenario (AO2). One mark for justification of each strength / weakness (AO3).	
	For example:	
	 As Alexei used an opportunity sample it would not take him a long time to gather his participants for his study on the effects of fear tactics on drug taking (1), as the participants were readily available as they were at a local clinic for alcoholics (1). 	
	 Weakness The participants that Alexei used for the effects of fear tactics on drug taking would have been from one area so they are not representative of all drug addicts (1), as drug addicts from a different area may have a different response to high fear tactics and this may affect Alexei's results (1). 	
	Answers must relate to the scenario.	
	Look for other reasonable marking points.	
	Generic answers score 0 marks.	

Question Number	Answer	Mark
15 (b)	AO2 (1 mark)	(1)
	One mark for correct calculation of the mean for condition A.	
	• 4	

Answer	Mark
AO2 (1 mark)	
One mark for correct calculation of the median for condition B.	
• 8.	
	AO2 (1 mark) One mark for correct calculation of the median for condition B.

Question Number	Answer	Mark
15 (d)	AO2 (1 mark)	(1)
	One mark for accurate determination of whether the results are significant.	
	For example: • There is a significant difference in the amount of alcohol consumed by addicts in the past week as the calculated value (4.5) is less than the critical value (5) (1).	
	Look for other reasonable marking points.	

Question Number	Answer	Mark
15 (e)	AO2 (1 mark), AO3 (1 mark)	(2)
	One mark for identification of one improvement in relation to the scenario (AO2). One mark for justification of one improvement (AO3).	
	For example: • Alexei could have used people who were addicted to other drugs such as heroin as well as alcohol (1), so he could see if high fear tactics had any effect on a range of drugs rather than just alcohol (1).	
	Answers must relate to the scenario.	
	Look for other reasonable marking points.	
	Generic answers score 0 marks.	

Question Number	Answer	Mark
_	AO1 (3 marks) Up to three marks for a description of one learning explanation For example: • People who take heroin would receive a positive reinforcement in the form of the euphoria they feel after taking heroin (1). Heroin also gives a negative reinforcement as it can take away physical pain so rewards the user (1). Addicts suffer withdrawal symptoms, such as feeling hot and cold, so take the heroin to remove these withdrawal symptoms which is negative reinforcement (1).	(3)
	Look for other reasonable marking points.	

Question Number	Indicative content	Mark
17	 AO1 (4 marks), AO2 (4 marks) AO1 A person is said to be physically dependent on a drug when they have developed tolerance and experience withdrawal symptoms. Tolerance is when the body has adapted to the drug and more needs to be taken to feel the same effect as the first time it was taken. When a person who is addicted stops taking the drug they experience physical symptoms as the drug levels in their body decrease. Psychological dependency occurs when the addict believes they cannot manage their daily life without taking the drug. 	(8)
	 Jekaterina is physically dependent on the illegal drug as she has withdrawal symptoms and has become tolerant to the drug. Jekaterina needs to take twice as much of the drug, daily, in order to feel the same effects as when she first took it. When she does not take the illegal drug Jekaterina has physical symptoms such as severe headaches. Jekaterina has developed psychological dependency as she feels she cannot manage her stressful job without taking the drug. Look for other reasonable marking points. 	

Level	Mark	Descriptor	
Candio	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	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)	(16)
	 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 the smoke from a cigarette every few seconds for a period of time. Smoking rapidly, causes a person to feel sick. The addict associates the feeling sick to 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. 	
	 The therapist will give the small group of addicts a packet of cigarettes and ask them to rapidly smoke the cigarettes. The small groups of nicotine addicts will 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 Mrs Smythe's patients associate cigarettes with feeling sick they will avoid smoking so that they will not feel sick. 	
	 Danaher (1977) studied rapid smoking and found that it was effective for some smokers, such as non-married couples, but it was not effective for everyone. Russell et al. (1976) found that using electric shocks as an aversive stimulus led to 61% of the smokers stopping smoking. Aversion therapy does not address the psychological reasons why nicotine addiction occurred so it may not work long term so may not be effective. 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 patient tries a cigarette and 	

- realises they do not feel sick, so it may not be effective long term.
- Aversion therapy can be a quicker and cheaper treatment than other therapies so nicotine addicts may prefer it.

Look for other reasonable marking points.

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)