Mark Scheme (Results)

Summer 2019

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

Question Number	Answer	Mark
1 (a)	**AO1 (3 marks)** One mark for each statement For example anorexia nervosa: • A restriction in the amount of food eaten in order to reduce the amount of calories consumed (1). • Carrying out behaviours to stop weight gain such as excessive exercising (1). • An extreme fear of gaining weight (1). For example obsessive-compulsive disorder: • The obsessions cause anxiety or distress if the patient tries to ignore them (1). • Compulsive behaviour, such as excessively washing the hands, is carried out for more than an hour a day (1). • Intrusive repetitive thoughts about the obsession (1). For example unipolar depression: • The patient has lost interest or pleasure in activities for at least two weeks (1). • Sleeping patterns change, the patient may find it hard to sleep, or may sleep for longer periods of time (1). • A feeling of hopelessness that nothing will get better in the future (1). **Look for other reasonable marking points.**	**(3)**

Question Number	Answer	Mark
1 (b)	**AO1 (2 marks), AO3 (2 marks)**	**(4)**
	One mark for identification of each strength/weakness (AO1) One mark for justification of each strength/weakness (AO3)	
	For example:	
	Anorexia nervosa-genetic factors	
	Strength:	
	• Scott-Van Zeeland et al. (2013) concluded there was an association between the EPHX2 gene and anorexia (1) suggesting genes do play a role in the development of anorexia so giving the explanation validity (1).	
	Weakness:	
	• Research on twins has found a higher concordance rate for anorexia than in the general population but the concordance rate has never been found at 100% (1) therefore genetic factors cannot be the only explanation for anorexia, other factors must also be involved (1).	
	Obsessive-compulsive-disorder brain structure	
	Strength:	
	• The use of scanning techniques, such as fMRI scans, gives data about the brain differences of those suffering with OCD compared to those who don't suffer from OCD (1) this gives objective data showing there are brain differences between the two groups increasing the reliability of the data used to support the explanation (1).	
	Weakness:	
	• The cognitive explanation would argue that OCD is caused by patients' biased thinking rather than by differences in brain functioning (1) as there is more than one possible explanation for OCD, this reduces the validity of the biological explanation (1).	
	Unipolar depression-neurotransmitters	
	Strength:	
	• The fact that anti-depressants work for those who have unipolar depression is a strength (1) as it suggests that there must be an imbalance in monoamines otherwise changing that imbalance would have no effect on the unipolar depression (1).	

Weakness:

- It could be that unipolar depression causes a reduction in monoamines rather than a reduction in monoamines causing unipolar depression (1) as most research in humans has found a correlation between a reduction in monoamines and unipolar rather than a cause and effect (1).

Look for other reasonable marking points.

Question Number	Answer	Mark
2 (a)	**AO2 (3 marks)** Up to three marks for description of distress and danger in relation to the scenario. For example: • Victoria is distressed as she is upset by the lack of money and the effect this has on her children (1). The fact that she is upset because she has to stay in the house also suggests her behaviour is causing her to be distressed (1). Victoria's fear of birds can be seen to be causing her danger as she may be involved in an accident when crossing the road (1). **Answers must relate to the scenario.** **Look for other reasonable marking points.**	**(3)**

Question Number	Answer	Mark
2 (b)	**AO1 (1 mark), AO3 (1 mark)** One mark for identification of a weakness. (AO1) One mark for justification of the weakness. (AO3) For example: • Some behaviours may be considered dangerous but not a symptom of a mental disorder by some people, such as car racing (1) therefore using danger may be subjective because it depends on the psychiatrist's perception of why the person is taking part in something that is dangerous (1). **Look for other reasonable marking points.**	**(2)**

Question Number	Answer	Mark
3 (a)	**AO2 (2 marks)** One mark for each statement in relation to using the Mann-Whitney U test. For example: • Nancy was looking for a difference between those who had sensory deprivation for 10 minutes and those who had sensory deprivation for 60 minutes (1). There were two separate groups of participants so it was an independent design (1). **Answers must relate to the scenario.** **Look for other reasonable marking points.**	**(2)**

Question Number	Answer	Mark
3 (b)	**AO2 (4 marks)**	**(4)**

Condition A		Condition B	
Number of reported hallucinations	Rank	Number of reported hallucinations	Rank
Total = 17.5		Total = 37.5	

$U_a = 5 \times 5 + \frac{5 \times 6}{2} - 17.5 = 22.5$

$U_b = 5 \times 5 + \frac{5 \times 6}{2} - 37.5 = 2.5$

One mark for correct totals (both group A and group B must be correct for mark).

One mark for $5 \times 5 + \frac{5 \times 6}{2}$

One mark for correct figure for U_a (i.e. minus the total of the ranks). **22.5**

One mark for correct figure for U_b (i. e. minus the total of the ranks). **2.5**

Note: U = the smaller value, i.e. = **2.5**.

Question Number	Answer	Mark
4	**AO1 (4 marks), AO2 (4 marks)**	**(8)**

AO1
- Case studies use a variety of research methods to gather a lot of detailed data.
- Case studies focus on one individual or a small group of people, usually due to unique circumstances.
- Case studies can use secondary and primary data, or can compare the individual throughout the length of the case study.
- Case studies use triangulation to compare the results from the various methods used to check the results of each method for consistency.

AO2
- George could use interviews to gather information about his patient's thought processes and experiment to compare his ability at different problem solving tasks.
- George would focus his research on his patient and not include other people at this time, as the case is unusual.
- George can compare his observations of the patient's behaviour with the observations in his notes from the previous doctor to build up a picture of the patient over time.
- George could compare the interview comments from the patient about their thought processes with the patient's performance on problem solving tasks to see if they support each other.

Look for other reasonable marking points.

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
5	**AO1 (4 marks), AO3 (4 marks)**	**(8)**

AO1

- Different cultures have different attitudes to mental disorders and this can affect how mental disorders are diagnosed.
- Some cultures have mental disorders that are specific to that culture such as amok in Malaysia.
- Western cultures tend to see the mind and body as separate aspects of a person, but this is not true of other cultures.
- There may also be issues with translation if the patient and psychiatrist speak a different language which can cause issues when diagnosing a mental disorder.

AO3

- Luhrmann et al. (2015) found that hearing voices was seen as a negative experience in America but a positive one in India, therefore this may change the way people react to others saying they can hear voices.
- Lin (1996) found that when looking at the symptoms of schizophrenia, there were more similarities across different cultures than differences suggesting cultural differences would not lead to a difference in diagnosis.
- Andrade et al. (2012) found that high social deprivation was associated with substance use disorders in São Paulo, showing that economic background can affect individual mental disorders.
- Psychiatrists can over-compensate for cultural differences and not diagnose a mental disorder when in fact there was one, so cultural differences may not have caused any difference in the disorders just in the diagnosis.

Look for other reasonable marking points.

Level	Mark	Descriptor
		AO1 (4 marks), AO3 (4 marks) **Candidates must demonstrate an equal emphasis between Knowledge and understanding vs assessment/conclusion in their answer.**
	0	No rewardable material.
Level 1	1–2 Marks	Demonstrates isolated elements of knowledge and understanding. (AO1) Generic assertions may be presented. 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 generic or superficial assessment being presented. (AO3)
Level 3	5–6 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 may be imbalanced. (AO3)
Level 4	7–8 Marks	Demonstrates accurate and thorough knowledge and understanding. (AO1) Displays a well-developed and logical assessment, containing logical chains of reasoning throughout. Demonstrates an awareness of the significance of competing arguments/factors leading to a balanced judgement being presented. (AO3)

Question Number	Indicative Content	Mark
6	**AO1 (8 marks), AO2 (4 marks), AO3 (8 marks)**	**(20)**

AO1
- It is thought that too many dopamine receptor sites in the brain lead to too much dopamine being used and this causes schizophrenia.
- Schizophrenics have a higher number of D2 receptor sites, and these are more likely to pick up dopamine that other dopamine receptors sites meaning the dopamine is more likely to have an effect as more of it is received.
- Too much dopamine in the mesolimbic system is thought to cause the positive symptoms of schizophrenia, such as delusions.
- Too little dopamine in the mesocortical system is thought to cause the negative symptoms of schizophrenia such as poverty of speech.
- Another neurotransmitter that may be involved is glutamate, with a decrease in glutamate causing symptoms such as psychosis.
- Glutamate is thought to control the amount of dopamine released by the brain, and normally seems to lower levels of dopamine.
- A reduction in glutamate can lead to an increase in the amount of dopamine released.
- An increase in serotonin activity can also lead to the positive and negative symptoms of schizophrenia.

AO2
- If Michael had an increase of dopamine in his mesolimbic system it could explain why he hears voices telling him what to do.
- Michael's symptoms of not going out with his friends any more can be due to less dopamine in his mesocortical system.
- Michaels' use of PCP may have limited the effect of glutamate, as it is an antagonist, therefore causing Michael to develop schizophrenia.
- It may be that Michael has too much serotonin in his brain and this could be the reason why he has both positive and negative symptoms.

AO3
- Carlsson et al. (2000) found that dopamine, glutamate and serotonin are all implicated in the development of schizophrenia showing that neurotransmitters can explain the development of schizophrenia.
- It could be that genes cause the changes in glutamate that is thought to cause schizophrenia, so the neurotransmitter explanation is not a full explanation.
- Anti-psychotic drugs work by blocking dopamine receptors and are effective in reducing the symptoms of schizophrenia,

suggesting that excess dopamine does explain the development of schizophrenia.

- Anti-psychotic drugs block dopamine receptors very quickly but it takes a few days for the symptoms of schizophrenia to be reduced so there may be other factors involved in developing schizophrenia, not just neurotransmitters so does not full explain the development of schizophrenia.
- Lindstroem et al. (1999) found that schizophrenics used L-DOPA faster than the control group, suggesting they were producing more dopamine at a quicker rate, and the excess dopamine can explain how schizophrenia is caused.
- Depatie & Lal (2001) found that giving people drugs that increase their production of dopamine does not create the symptoms of schizophrenia as would be expected if excess dopamine caused it, so it is not the only explanation of the causes of schizophrenia.
- The neurotransmitter explanation of schizophrenia can be said to be incomplete as it ignores other possible causes of schizophrenia such as early childhood experiences or cognitive processes, and it is not the only explanation.
- Researchers at Liverpool University in 2012 found that childhood trauma makes you three times more likely to develop schizophrenia, suggesting that there is a strong relationship between the environment and the development of schizophrenia and it is not just due to neurotransmitters.

Look for other reasonable marking points.

Level	Mark	Descriptor
		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 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 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 Marks	Demonstrates accurate knowledge and understanding. (AO1) 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
OPTION 1: CRIMINOLOGICAL PSYCHOLOGY

Question Number	Answer	Mark
7 (a)	**AO2 (3 marks)** Up to **three** marks for description of post event information in relation to Rose. For example: • Rose may have discussed the bank robbery with the other witnesses who may have mislead her recollection of the robbery (1). For example, Rose originally thought the robber had brown hair but remembered this as blonde after talking to the other witnesses (1). Information from the local news about the weapon may have been incorrect but it became incorporated into Rose's memory of the robbery (1). **Answers must relate to the scenario.** **Look for other reasonable marking points.**	**(3)**

Question Number	Answer	Mark
7 (b)	**AO2 (4 marks)** Up to **four** marks for description of cognitive interview in relation to Rose. For example: • The police would have asked Rose to report everything that she remembered about the robbery, as a small detail may cause her to remember other information (1). The police may ask Rose to think about the environment in the bank at the time of the robbery, such as what music was in the background (1). Rose could be asked to recall the event from the point of view of the cashier behind the desk as this may trigger more memories (1). The police would not ask Rose any specific questions until later on in the interview to try and stop Rose reconstructing the event based on the questions asked (1). **Answers must relate to the scenario.** **Look for other reasonable marking points.**	**(4)**

Question Number	Answer	Mark
8 (a)	**AO2 (1 mark)**	**(1)**

Condition A Reoffending rates for those who received cognitive-behavioural treatment	Condition B Reoffending rates for those who received no treatment
0	3
1	2
3	4
2	5
0	3
0	2
2	1
1	5
1	6
0	4
Range = 3	**Range = 5**

One mark for Range = **5**

Question Number	Answer	Mark
8 (b)	**AO2 (1 mark), AO3 (1 mark)** One mark for identification of why the mean is better for Marya's data (AO2) One mark for justification of why the mean is better (AO3) For example: The mean is better as it uses all the reoffending rates for all ten participants in each group (1) so it is a more meaningful representation than the mode which would only use the most frequent number of reoffending rates (1). **Answers must relate to the scenario.** **Look for other reasonable marking points.**	**(2)**

Question Number	Answer	Mark
8 (c)	**AO2 (1 mark), AO3 (1 mark)** One mark for identification of improvement to Marya's field experiment (AO2). One mark for justification of improvement (AO3). For example; Marya could gather her data after a few years rather than after six months (1), which would allow her to see if the cognitive-behavioural treatment had a long-term effect on reoffending rates (1). **Answers must relate to the scenario.** **Look for other reasonable marking points.**	**(2)**

Question Number	Indicative Content	Mark
9	**AO1 (4 marks), AO3 (4 marks)**	**(8)**
	AO1	
	• The aim of the study was to see if the phrasing of a question about speed would affect the participants' estimation of the speed of cars.	
	• In experiment one, 45 participants all watched the same seven films of traffic accidents.	
	• Participants were asked the same questions apart from the one about 'How fast were the cars going when they smashed/collided/bumped/hit or contacted each other?'	
	• The results showed that those asked smashed estimated the speed of the car to be 8.7 mph faster than those asked contacted.	
	AO3	
	• The study may lack validity as seeing a traffic accident on video does not have the same emotional effect as seeing a traffic accident in real life.	
	• All the participants were students, so the results cannot be generalised as they may give different speed estimates to older people who had been driving for longer.	
	• As the participants all watched the same videos, the results were not affected by seeing different traffic accidents, increasing the reliability of the study.	
	• The study collected quantitative data in the form of estimated mph, therefore increasing objectivity when analysing results as there was no interpretation of what the participants said.	
	Look for other reasonable marking points.	

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
10	**AO1 (6 marks), AO2 (4 marks), AO3 (6 marks)**	**(16)**

AO1
- According to labelling theory a behaviour is only deviant if society says it is deviant.
- By giving a behaviour the label of deviant then the authorities are maintaining their power structure.
- Once a person has been labelled as deviant because of something they have done that person becomes stigmatised.
- The label affects how others treat them, as they will be seen as untrustworthy.
- Those with negative labels are also more likely to have a lower self-image of themselves, and are more likely to reject themselves.
- The person will go on to act in ways that fulfil the label and commit more criminal behaviour.

AO2
- Donald's shoplifting has been labelled as deviant as he has been taken to a police station and given a warning.
- The local shop keepers may treat Donald differently, closely watching him whenever he comes into a shop.
- Donald will start to give himself a negative self-concept and see himself as untrustworthy, and a shoplifter.
- Due to his negative self-image Donald will go on to commit more acts of shoplifting, and possibly other more serious crimes such as burglary.

AO3
- Labelling theory ignores the reason for the original deviant act, so there must be other explanations for criminal behaviour, such as social learning theory so it is not due to what society sees as deviant.
- Chambliss (1973) found the Roughnecks were more likely to be labelled deviant by the police and were more likely to have legal action taken against them, whilst the Saints were not supporting the fact labelling is part of the power structure.
- Labelling theory focuses on nurture and ignores nature, such as genes or hormones having an effect on criminal behaviour, so it does not explain all criminal behaviour.
- Lieberman et al. (2014) found that juveniles who had been previously arrested were more likely to commit other crimes compared with juveniles who had not been previously arrested, which could be due to labelling theory and how others treat them.
- Lemert (1962) found that cheque forgers had been forging cheques long before they were caught, so had been active before they had been labelled, so their self-image is not affected by the label.
- Labelling theory can explain deviant behaviours, for example in Amsterdam the use of marijuana is not labelled as deviant and there is limited drug use with very few cases of

		overdose compared to other cultures where it is labelled as deviant.
		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 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 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 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 Marks	Demonstrates accurate knowledge and understanding. (AO1) 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 the ability to integrate and synthesise relevant knowledge. (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)

OPTION 2: CHILD PSYCHOLOGY

Question Number	Answer	Mark
11 (a)	**AO2 (3 marks)** Up to **three** marks for description of the advantages of day care in relation to Donna For example: • Donna will become more socially advanced as she is six months old so is under one year of age according to Andersson (1992) (1). Donna will have more friends and be more outgoing due to the social interaction with the other children at the nursery (1). Sylva et al. (2004) found that children who started nursery before three years old will benefit intellectually, so this should also apply to Donna as she is six months old (1). **Answers must relate to the scenario.** **Look for other reasonable marking points.**	**(3)**

Question Number	Answer	Mark
11 (b)	**AO2 (4 marks)** Up to **four** marks for description of what makes good quality day care in relation to the scenario For example: • Rose could ask about the staff turnover, and ensure that it is low, as this will allow Donna to form attachments with her carers (1). Rose could also ensure that there is a low child to staff ratio, a maximum of 1 staff to 3 children, as this will ensure Donna gets the attention she needs from the carers (1). As well as checking the manager's qualifications Rose could also ensure that other members of staff are qualified, at least to Level 2 (1). This ensures the staff have the knowledge to look after Donna and provide her with activities to aid her intellectual development (1). **Answers must relate to the scenario.** **Look for other reasonable marking points.**	**(4)**

Question Number	Indicative Answer	Mark
12 (a)	**AO2 (1 mark)**	**(1)**

Condition A Score on the questionnaire for those who received the new therapy	Condition B Score on the questionnaire for those who received no therapy
0	3
1	2
3	4
2	5
0	3
0	2
2	1
1	5
1	6
0	4
Range = 3	**Range = 5**

One mark for Range = **5**

Question Number	Answer	Mark
12 (b)	**AO2 (1 mark), AO3 (1 mark)** One mark for identification of why the mean is better for Marya's data (AO2) One mark for justification of why the mean is better (AO3) For example: • The mean is better as it uses all the scores from the social skill questionnaire for all ten participants in each group (1) so it is a more meaningful representation than the mode which would only use the most frequent number concerning improvement in social skills (1) **Answers must relate to the scenario** **Look for other reasonable marking points.**	**(2)**

Question Number	Answer	Mark
12 (c)	**AO2 (1 mark), AO3 (1 mark)** One mark for identification of improvement to Marya's questionnaire (AO2). One mark for justification of improvement (AO3). For example; • Marya could gather her data after a few years rather than after six months (1), which would allow her to see if the new therapy had a long term effect on the social skills of those with autism (1). **Answers must relate to the scenario.** **Look for other reasonable marking points.**	**(2)**

Question Number	Indicative Content	Mark
13	**AO1 (4 marks), AO3 (4 marks)** **AO1** • The aim of the study was to use data from a variety of different countries to compare cross-cultural differences in attachment style. • They used a computer search to find studies where only the mother-child style of attachment had been studied. • The attachment types A, B and C were used, with any attachments that were just reported as insecure being eliminated from the meta-analysis. • The results showed that a secure attachment was the most common attachment in all the countries when the results of the studies were totalled. **AO3** • The use of a number of studies from each country studied led to a large sample size from those countries so the results can be said to be generalisable. • The use of specific criteria such as only using studies that looked specifically at mother and child attachments makes the study easier to replicate. • Children with Down's syndrome were excluded from the sample therefore it cannot be said that the results are true for attachment types for those with Down's syndrome. • The use of a meta-analysis means that any issues with how the original studies were carried out may also affect the validity of this study. **Look for other reasonable marking points.**	**(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
14	**AO1 (6 marks), AO2 (4 marks), AO3 (6 marks)**	**(16)**

AO1
- When a child suffers deprivation they go through the three stages of protest, despair and detachment in the short-term (Robertson 1953).
- Spitz (1946) studied the effects of being in an institution and found that it led to the children being depressed, especially if deprived of the mother for three months or more.
- Spitz (1946) also found that children who were only partially depressed took two to three months to readjust to the deprivation once reunited with the mother.
- Goldfarb (1955) found that the older a child was when it was fostered or adopted the less emotionally secure the children were.
- Olsavsky et al. (2013) found that children who had been maternally deprived had a similar response in the amygdala when seeing the mother or a stranger and were more indiscriminately friendly.
- Bowlby's (1944) research showed that maternal deprivation can lead to delinquency and affectionless psychopathy.

AO2
- When Donald was first in the hospital he may have cried a lot and wanted his mother near him.
- Donald has only been deprived of his parents for two months so his depression should not become severe.
- Donald was over two years old when he went into hospital so the stay in hospital should not affect his emotional security in the long-term.
- Donald may be friendly to a number of people when getting out of the hospital, whether he knows them or not.

AO3
- Robertson's (1953) study gathered detailed evidence about the behaviour of the children so can be said to be valid and show the short-term effects of deprivation.
- Robertson (1953) carried out observations on a few children individually so the results of the study may not explain the short-term effects of deprivation on all children.
- Spitz (1946) found that adding more care for children in institutions led to the children having fewer problems, so this can be applied to hospitals where named nurses can give individualised care to long term patients.
- Goldfarb (1955) used a control group of children who were fostered at an early age, so his research has validity as it shows the effects of being in an institution rather than the effects of not being with your natural mother.
- Olsavsky et al. (2013) used children who had been institutionalised for a long time, so his results may only tell us the effects of deprivation on those who are long term institutionalised rather than deprived of their mothers.

| | | • Much or the research into the effects of deprivation may not be relevant to today as hospitals have different policies now, allowing open visiting times and assigning key workers to children.

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 assessment/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 and procedures). (AO2) Generic assertions may be presented. 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 and procedures). (AO2) 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) 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) 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 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 assessment, containing logical chains of reasoning throughout. Demonstrates an awareness of the significance of competing arguments/factors leading to a balanced judgement being presented. (AO3)

OPTION 3: HEALTH PSYCHOLOGY

Question Number	Answer	Mark
15 (a)	**AO2 (4 marks)** Up to **four** marks for description in relation to the scenario For example: • Rose should use a variety of media in order to reach a large number of young adults, including the internet and adverts on the television (1). Rose could use humour and language that is easy to understand so that the young adults are engaged with the campaign (1). Rose could add helpline numbers or website addresses so the young adults who want more information know where to look for it (1). Rose could use the Yale model of communication and have a credible person leading the campaign such as a celebrity who has overcome drugs (1). **Answers must relate to the scenario.** **Look for other reasonable marking points.**	**(4)**

Question Number	Answer	Mark
15 (b)	**AO2 (3 marks)** Up to **three** marks for description of analysis in relation to scenario. For example: • Rose could conduct a thematic analysis on the qualitative data by looking for common themes in the young adults' comments on the anti-drugs campaign (1). With the quantitative data Rose could create a bar chart showing the drug use of the young adults before and after her anti-drugs campaign (1). Rose could use a Wilcoxon test to see whether there was a statistically significant difference in drug use before and after the anti-drugs campaign (1). **Answers must relate to the scenario.** **Look for other reasonable marking points.**	**(3)**

Question Number	Answer	Mark
16 (a)	AO2 (1 mark)	(1)

Condition A Number of alcoholic drinks in a week for those who received the new treatment	Condition B Number of alcoholic drinks in a week for those who received no treatment
0	3
1	2
3	4
2	5
0	3
0	2
2	1
1	5
1	6
0	4
Range = 3	**Range = 5**

One mark for Range = **5**

Question Number	Answer	Mark
16 (b)	**AO2 (1 mark), AO3 (1 mark)** One mark for identification of why the mean is better for Marya's data (AO2) One mark for justification of why the mean is better (AO3) For example: • The mean is better as it uses all the scores for the number of alcoholic drinks each participant had (1) so it is a more meaningful representation than the mode which would only use the most frequent number concerning the number of alcoholic drinks participants had (1). **Answers must relate to the scenario** **Look for other reasonable marking points.**	**(2)**

Question Number	Answer	Mark
16 (c)	**AO2 (1 mark), AO3 (1 mark)** One mark for identification of improvement to Marya's study (AO2). One mark for justification of improvement (AO3). For example; • Marya could gather her data after a few years rather than after six months (1), this would allow her to see if the new therapy had a long term effect on the amount of alcohol the participants drank (1). **Answers must relate to the scenario.** **Look for other reasonable marking points.**	**(2)**

Question Number	Indicative Content	Mark
17	**AO1 (4 marks), AO3 (4 marks)**	**(8)**
	AO1	
	• The aim of the study was to see if electrical stimulation of rats' brains had a reinforcing effect.	
	• Fifteen male hooded rats were used in the study, and they had to press a lever to deliver an electrical current to their brain.	
	• The rats had six to twelve hours where they received an electrical stimulation every time they pressed the lever and one to two hours where pressing the lever did not lead to electrical stimulation.	
	• When the electric stimulation went to the septal area of the brain the rats pushed the lever in increasing amounts, up to 7500 times in one rat.	
	AO3	
	• The results have validity as the rats had free access to food and water apart from when they were in the Skinner box, so the electrical stimulation did not reduce any other drive, and was reinforcing in its own right.	
	• As rats brains are not exactly the same as human brains the results of the study may not apply to humans.	
	• The study can be seen as unethical as the rats had to go up to twelve hours without food and water, and can be seen as inappropriate caging when the time spent in without food or water could be shorter.	
	• The data are objective as the number of times the rats pressed the lever was used, therefore increasing the reliability of the results as it was not due to subjective interpretation of the rats behaviour.	
	Look for other reasonable marking points.	

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
18	**AO1 (6 marks), AO2 (4 marks), AO3 (6 marks)**	(16)

AO1
- According to social learning theory we need to observe the process of smoking a cigarette, such as how to inhale.
- We are more likely to pay attention to a role model smoking if they are of relevance to us.
- Smokers may be vicariously reinforced for smoking, such as appearing more relaxed, so this will increase the possibility of the behaviour being imitated.
- People must be able to carry out the behaviour, so they must be able to physically light a cigarette.
- The behaviours have to be retained in our memory, so in order to imitate smoking we have to remember how a cigarette is lit.
- Once smoking has been tried for the first time people may be motivated to carry on with the behaviour as they are extrinsically motivated by the reaction of other people.

AO2
- Donald would have observed his friends inhaling cigarettes and then blowing the smoke out.
- Donald will pay attention to his father smoking as he is of the same sex as Donald.
- Donald may see other friends being praised for smoking and so is motivated to smoke in order to receive praise.
- Donald may then be extrinsically motivated to carry on with smoking as his friends see him as cool and part of the gang.

AO3
- Bandura, Ross and Ross (1961) found that children will copy the aggressive behaviour of adult role models, so this may also explain why people start smoking.
- Bandura, Ross and Ross (1961) used children aged three to five years old so it may not explain why people become addicted to nicotine as they tend to be older when they start smoking.
- Ennett et al. (1994) found that having friends who did or did not smoke led to individuals having the same behaviour, so suggesting social learning theory can explain addiction to nicotine.
- Social learning theory ignores biological factors such as the mode of action of nicotine so cannot be considered a full explanation of addiction to nicotine.
- Social learning theory can be seen as a better explanation for addiction to nicotine than operant conditioning, as it explains why people carry on smoking even though they often find their first experience unpleasant.
- One reason groups of friends all smoke could be that people choose to be friends with other smokers rather than because they are vicariously reinforced by their friends.

		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)