



GCSE (9–1)

Psychology

J203/01: Studies and applications in Psychology 1

General Certificate of Secondary Education

Mark Scheme for June 2019

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This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which marks were awarded by examiners. It does not indicate the details of the discussions which took place at an examiners' meeting before marking commenced.

All examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the report on the examination.

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Annotations

Annotation	Meaning
/	Separate
?	Meaning unclear
APP	Application
BOD	Benefit of Doubt
λ	Omission
×	Incorrect
✓	Correct
E	Expansion
EVAL	Evaluation
IRRL	Irrelevant
↓	Band down
KU	Knowledge & Understanding
NBOD	Not Benefit of the Doubt
REP	Repetition
SEEN	Seen
TV	Too vague

Subject Specific Marking Instructions

Question		Answer	Marks	Guidance
1	(a)	D - Object permanence	1	
	(b)	D - the stages occur in a fixed order	1	
	(c)	D – is too reductionist by over-simplifying the cause of development	1	
2	(a)	Concrete operational	1	Do not credit the word 'concrete' alone.
	(b)	Lucinda	1	
3		Pre-natal as the first stage Adolescence as the third stage	2	
4		<p>1 mark for identifying a relevant part of the brain.</p> <p>For example:</p> <p>Childhood - prefrontal cortex or neural connections such as in the visual cortex.</p> <p>Adolescence - the limbic system, pre-frontal cortex or frontal lobes.</p> <p>1 mark for how this part of the brain changes</p> <p>For example:</p>	3	<p>If candidate does not name the stage then full credit be given if it is obvious that their response focuses on a valid stage.</p> <p>If candidate names one stage but describes the other then full credit can still be given for the description.</p> <p>If stages are muddled in the description then give credit for the stage which is best described.</p> <p>'Behaviour' can be interpreted broadly to include any psychological effect.</p>

Question			Answer	Marks	Guidance
			<p>Childhood – neural connections significantly pruned</p> <p>Adolescence – pre-frontal cortex is remodelled, limbic system is used for decision making</p> <p>1 mark for applying this knowledge and understanding to how these can affect behaviour.</p> <p>For example:</p> <p>Childhood - Changes in the prefrontal cortex allows the child to start to use their past experiences to understand the present. They also start to understand cause and effect.</p> <p>Adolescence - Development in the limbic system regulates emotion and helps in formation of new memories. Changes in the prefrontal cortex regulates decision making and moderates social behaviour.</p>		Do mark the response holistically, looking for the best answer where more than one part of the brain has been identified.
5	(a)	(i)	<p>1 mark for recognising that fixed or growth mindset was measured using a questionnaire</p> <p>1 mark for an elaborated response describing an additional feature of the questionnaire (by Likert scale) or by measurement of theory of intelligence / learning goals / effort beliefs or helpless responses to failure.</p>	2	The response does not have make specific reference to a detail of the study for both marks e.g. just referring to closed questions would be enough for a second mark.
		(ii)	<p>1 mark for correctly calculating the percentage of the sample that were female to 1 decimal place. Plus 1 mark for partial workings or 2 marks for full workings.</p>	3	If a candidate works out the percentage to be 53.1% by taking 198/373 then this can credited all 3 marks as well using the mark scheme in the same way.

Question		Answer	Marks	Guidance
		<p>For example: $198+175 = 373$ $175/373 = 0.46917$ $0.46917 \times 100 = 46.917$ (%) $= 46.9\%$</p>		Evidence of partially correct calculation without correct answer can still be given 1 mark e.g. $198 + 175 = 373$ but the rest of the answer is then incorrect.
	(b)	<p>1 mark for a brief statement of a finding. 1 mark for a developed statement of a finding .</p> <p>For example: 'Mindset became a significant predictor of maths achievement [1] as those students with a growth mindset made more <i>progress</i> than those with a fixed mindset [1]'</p>	2	<p>A conclusion can be included as a finding.</p> <p>NB Findings can come from Study 1 or Study 2.</p>
6		<p>1 mark for recognising that the student has a fixed mindset (which can be implied).</p> <p>Further marks for how Karen can develop a growth mindset in her student. This could be one way where the effect on the student is also explained, or two distinct ways (e.g. praise for effort, explaining the theory of mindset, etc).</p>	3	NB The effect on the student should explicitly refer to features of growth mindset e.g. taking on challenges/risks, accepting failure, belief ability can change. Do not credit simple statements like 'the student believes she can work harder/do better/take on A-Levels'.
7		<p>1 mark for a brief or basic criticism of learning styles. 2 marks for a more developed criticism of learning styles.</p> <p>Likely criticisms include the need to focus on meaning/objectives instead, the importance of ability/background knowledge/interest on learning, preferred learning styles versus actual learning style.</p> <p>Example answer: 'Willingham criticised learning styles for being too stereotyped as they over-categorise learners [1] when it is more important for each individual to understand the meaning of what they are learning regardless of learning style [1].'</p>	2	NB Do not credit a re-writing of the question e.g. 'Willingham thinks learning styles are a myth'. The candidate needs to explain why.

Question		Answer	Marks	Guidance
8		1 mark for a clear link to between nurture and the theory. 1 mark for a clear link to between the theory and its stance against nature.	2	For both marks, the response needs to be in the context of learning and teaching.
9	(a)	B – whether participants had been given amphetamine or not	1	
	(b)	D – the sample was too small	1	
	(c)	C – the study found support for the biological theory	1	
10	(a)	Panic disorder	1	Don't accept 'panic' alone.
	(b)	1 mark for the correct fraction as 3/50. 1 mark for accurate workings reducing the fraction to its lowest form. For example, $6/100 = 3/50$	2	Allow $6/25.8 = 10/43$
	(c)	1 mark for identifying a weakness of using quantitative data. 1 mark for placing the weakness in context of describing mental health problems. For example, 'one weakness of quantitative data is it lacks construct validity [1] as it simplifies the complexity of mental health problems [1].'	2	Accept the idea that quantitative data is (too) reductionist.
	(d)	Pie chart	1	

Question		Answer	Marks	Guidance
11		<p>1 mark for the accurate identification of one appropriate brain structure or brain function.</p> <p>1 mark for demonstrating an understanding of how the identified brain structure/function will be different.</p> <p>2 further marks for an elaborated response explaining the role of the identified brain structure or function in schizophrenia.</p> <p>For example, 'one brain structure that will be different in people with schizophrenia is the prefrontal cortex [1]. This may not function properly [1] and so people with schizophrenia may not have the same control over their thinking [1] which could explain why they may show disorganised thought [1]'.</p>	4	<p>A response can be elaborated by explaining which symptoms of schizophrenia may relate to a particular dysfunction/structural difference.</p> <p>For 4 marks the response must be coherent, accurate and detailed.</p>
12		<p>1 mark for a brief or basic criticism of the biological theory.</p> <p>1 mark for a developed criticism of the theory.</p> <p>For example, 'the biological theory may be too deterministic [1], by explaining the cause of schizophrenia by biology, it assumes the individual has no free will [1] or 'the biological theory is too reductionist [1] as it tries to explain the complexities of schizophrenia in simple biological terms [1]'</p>	2	<p>It is possible to back credit a descriptive statement e.g. 'the theory focuses on nature' if it is followed by something which is clearly critical e.g. 'so it ignores the significance of environmental factors and family upbringing.'</p> <p>NB The phrase 'it ignores nurture in favour of nature' or similar should only be awarded 1 mark as it is too basic for both marks.</p> <p>NB It is not necessary to refer explicitly to schizophrenia for full marks. Well-developed generic criticisms are acceptable.</p>
13		<p>1 mark for the identification of one way the development of neuropsychology has aided the study of schizophrenia and/or depression e.g. use of drugs, use of brain imaging/scanning, use of neuropsychological tests.</p>	3	<p>If brain scans are referred to and then named this still only earns 1 mark in total as remaining marks are for description rather than identification.</p>

Question		Answer	Marks	Guidance
		<p>2 further marks for an elaborated response explaining how the method is used.</p> <p>For example, 'one method neuropsychologists use is brain imaging techniques [1] which allows us to see the differences between the brain of a person with schizophrenia and the brain of someone without [1] in order to support the idea that the disorder potentially has a biological cause [1].'</p>		
14	(a)	A – the '(serious) operation' or the '(planned) holiday' or the 'flight getting closer'	1	
	(b)	B - she will not get better (in time)	1	
	(c)	C - becomes more anxious and/or depressed	1	
15		<p>1 mark for knowing that the ABC model supports the idea of free will.</p> <p>1 mark for applying the concept of the free will to the model.</p> <p>1 mark for showing how the model ignores determinism.</p> <p>For example: 'The model believes that people have the free will [1] to change their thinking from irrational to rational [1] as depression is not caused by factors out of their control [1]'</p>	3	
16	(a)	B – confident and sociable	1	

Question		Answer	Marks	Guidance
	(b)	D – criminals score high on all three	1	
	(c)	A – biological area	1	
17		<p>1 mark for each correctly matched type of crime with its definition.</p> <p>Violent offences = Crimes that result in physical harm or death</p> <p>Acquisitive offences = Crimes where capital or belongings are acquired through illegal means</p> <p>Anti-social offences = Criminal acts that cause harassment, alarm or distress to people who do not share a home with the perpetrator</p>	3	Subtract 1 mark for each additional line drawn.
18		<p>1 mark for stating a problem pertaining to questionnaires</p> <p>1 mark for explaining the problem in the context of the measuring crime.</p> <p>For example: ‘One problem of measuring crime using questionnaires is social desirability [1] as people may give socially acceptable answers because crime is a sensitive topic [1]’ or ‘One problem is that people may not understand the questions they are asked [1] so the measure of crime becomes invalid [1].’</p>	2	
19	(a)	‘meet with the person he stole from’ or ‘apologise for his actions’	1	

Question		Answer	Marks	Guidance
	(b)	'to work as a volunteer at a charity shop'	1	
19	(c)	1 mark for identifying one other form of punishment. Most likely answer is prison or paying a fine.	1	Do not credit community sentencing as this is covered in the source (and questions) already.
20		<p>AO1 description marks can be awarded for knowledge and understanding of: Eysenck's biological theory of criminal personality (nature) or the Social learning theory (Nurture) plus one other relevant theory e.g. Piaget's theory (nature), biological explanation (nature), Dweck's theory (nurture).</p> <p>AO1 Level 3 (5-6 marks) The response demonstrates a good understanding of the nature/nurture debate which is linked throughout to crime. This is done with accuracy and clarity. The information presented is relevant and well detailed in a good structure.</p> <p>Level 2 (3-4 marks) The response demonstrates a reasonable understanding of the nature/nurture debate which has some links to at least one theory of criminality and at least one theory from another area of psychology. There may be some inaccuracies though most of the information presented is relevant. The response has a reasonable structure.</p> <p>Level 1 (1-2 marks) The response is basic and shows only a vague/very weak understanding of the nature/nurture debate. Links to theories are vague/very weak. The information should</p>	13	For AO1: to be placed in Level 2 or above, the response must refer to both a theory of criminality and a theory from at least one other area of psychology.

Question	Answer	Marks	Guidance
	<p>have some relevance though there will be inaccuracies. Structure may be weak/poor.</p> <p>0 marks – No creditworthy response</p> <p>AO3 marks for critical evaluation points relating to the nature/nurture debate in relation to theories of criminality and at least one other area, for example, learning theories of development.</p> <p>AO3 Level 3 (6-7 marks) There is thorough evaluation which offers breadth and/or depth covering at least one theory of criminality and at least one theory from another area of psychology. Points are coherent and relevant and the response is developed in order to reach a well-developed judgement in response to the question.</p> <p>Level 2 (4-5 marks) There is good evaluation which offers breadth and/or depth covering at least one theory of criminality and at least one theory from another area of psychology. Points may be brief but should still be relevant and used to reach a judgement in response to the question.</p> <p>Level 1 (1-3 marks) There may be some basic attempt at evaluation but it will be weak. Judgements will be either unclear or absent.</p> <p>0 marks – No creditworthy response</p>		<p>For AO3: to be placed in Level 2 or above, the evaluation must refer to all theories included.</p>

Question		Answer	Marks	Guidance
21		<p>1 mark for recognising that an alternative hypothesis predicts a difference. 1 mark for the accurate identification of both variables.</p> <p>For example, 'There will be a difference [1] in how quickly material is learned in the morning rather than in the afternoon [1]' or 'People who are taught in the morning will recall more in a test [1] than people who are taught in the evening [1].'</p>	2	<p>Null hypotheses can still earn 1 mark if both variables are clearly stated.</p> <p>Hypotheses predicting correlations receive no credit.</p> <p>NB All conditions of an IV should be referenced in the statement.</p>
22	(a)	Time taken to learn/Amount learned/What is learned or similar.	1	The candidate may begin to operationalise their DV in response to this question and this can be credited. However, be careful not to double-credit details that may occur in their response to 22(b).
	(b)	<p>1 mark for the identification of the technique for measuring the dependent variable. 1 mark for further detail of this technique.</p> <p>For example, 'I would ask participants to learn a piece of text [1] and would measure their learning by the amount of the text they could remember [1]'</p>	2	If the response in (b) does not follow on logically from response to (a) then credit (b) if it is worth more marks than (a). Do not credit (a) as well.
23	(a)	<p>1 mark for the identification of any feasible extraneous variable that may affect learning in this investigation.</p> <p>For example, 'One extraneous variable that may affect the investigation is that some people may be better at learning than others, regardless of the time of day [1]', or 'One extraneous variable that may affect the investigation is if the participants do the experiment in different places [1]'</p>	1	

Question		Answer	Marks	Guidance
23	(b)	<p>1 mark for the identification of a technique for controlling the extraneous variable identified in (a) which would normally be standardisation.</p> <p>1 further mark for some detail of how this control would work in the context of this investigation.</p> <p>'I would make sure that the same (1) reading material was given to participants in both conditions (1)'.</p>	2	<p>Although the question does not ask for one technique, there should only be one offered so credit first answer only.</p> <p>If the response in (b) does not follow on logically from response to (a) then credit (b) if it is worth more marks than (a). Do not credit (a) as well.</p>
24		<p>1 mark for identifying a basic procedure and/or one feature of the procedure.</p> <p>2 marks for a reasonably feasible procedure and/or two features of the procedure.</p> <p>3 marks for describing a feasible procedure and/or three features of the procedure.</p> <p>4 marks for a more detailed description of a feasible procedure and/or four or more features of the procedure.</p> <p>Example of a 1-mark answer</p> <p>I would carry out my experiment in a classroom at my school using an opportunity sample of 20 students at the school as my participants.</p> <p>Example of a 2-mark answer</p>	4	<p>The emphasis is on how not why so no credit can be awarded for justifications.</p> <p>Consider any of the following:</p> <p>How the independent variable will be operationalised Who will comprise the sample How the sample will be gathered How the groups will be selected, e.g. random allocation into the two conditions Location of the investigation Experimental design Additional controls not credited in Q23 By whom (details of researcher) Any instructions given to participants</p> <p>For full marks, it must be clear that the procedure reflects an experiment.</p> <p>Do NOT credit any aspect of the investigation that has been / will be awarded in separate questions.</p>

Question	Answer	Marks	Guidance
	<p>I would carry out my experiment in a classroom at my school using an opportunity sample of 20 students at the school as my participants. I would use a repeated measures design where all the participants will take part in the experiment in both the morning and the afternoon.</p> <p>Example of a 3-mark answer</p> <p>I would carry out my experiment in a classroom at my school using an opportunity sample of 20 students at the school as my participants. I would use a repeated measures design where all the participants will take part in the experiment in both the morning and the afternoon. Participants would be asked to read a passage from a textbook and given 20 minutes to learn it. After the 20 minutes is up, the participants would be asked to write down everything they could remember from the passage.</p> <p>Example of a 4-mark answer</p> <p>I would carry out my experiment in a classroom at my school using an opportunity sample of 20 students at the school as my participants. I would use a repeated measures design where all the participants will take part in the experiment in both the morning and the afternoon. Participants would be asked to read a passage from a textbook and given 20 minutes to learn it. After the 20 minutes is up, the participants would be asked to write down everything they could remember from the passage. This would then be repeated in the afternoon with a different textbook and the amount learned would be compared to see if there is a difference.</p>		<p>Be mindful of contradictory procedures in light of other information provided in other question parts.</p> <p>For full marks the response needs to be clear, accurate and detailed.</p>

Question		Answer	Marks	Guidance
25		<p>1 mark for a reference to a relevant ethical issue in relation to this investigation.</p> <p>1 mark for suggesting a way this issue could be dealt with – likely to be debriefing, giving the right to withdraw or ensuring confidentiality.</p> <p>For example, ‘One ethical consideration is right to withdraw. [1] I would consider this by informing participants at the beginning of the experiment that they can stop taking part at any time [1]’ or ‘One way of dealing with ethics is debriefing [1] the participants who should be told about the study’s real aims at the end of the study [1]’.</p>	2	For full marks the response does not need to make explicit reference to the investigation for full marks but the chosen ethical issue needs to be make sense in the context of the investigation.
26		<p>1 mark for the identification of a weakness pertaining to the experimental method.</p> <p>1 mark for an elaborated response explaining the consequence of the weakness in context of the investigation in the source.</p> <p>For example, ‘One weakness of the experimental method is low ecological validity [1], this means the findings cannot be related to real life, in this experiment the method of learning used was not a usual task for the participants [1] and so different findings may have been found’. Or, ‘One weakness of the experimental method is demand characteristics [1] if participants guess the aim of the study they may try harder to learn more in one condition’ [1].</p>	2	It is permissible for candidates to focus specifically on a laboratory or field experiment if this is part of their plan.

J203/01

Mark Scheme

June 2019

Question		Answer	Marks	Guidance
27		1 mark for knowing that all the scores in a data set must be added together to find the total. 1 mark for knowing that this total is then divided by the number of scores in the data set to achieve a mean score.	2	The candidate does <u>not</u> have to demonstrate this knowledge in the context of the data from their study to earn these marks.

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