



GCSE

Psychology

J203/01: Studies and applications in Psychology 1

General Certificate of Secondary Education

Mark Scheme for June 2022

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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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MARKING INSTRUCTIONS**PREPARATION FOR MARKING
RMASSASSOR**

1. Make sure that you have accessed and completed the relevant training packages for on-screen marking: *RMAssessor assessor Online Training*; *OCR Essential Guide to Marking*.
2. Make sure that you have read and understood the mark scheme and the question paper for this unit. These are posted on the RM Cambridge Assessment Support Portal <http://www.rm.com/support/ca>
3. Log-in to RMAssessor and mark the **required number** of practice responses (“scripts”) and the **number of required** standardisation responses.

YOU MUST MARK 10 PRACTICE AND 10 STANDARDISATION RESPONSES BEFORE YOU CAN BE APPROVED TO MARK LIVE SCRIPTS.

MARKING

1. Mark strictly to the mark scheme.
2. Marks awarded must relate directly to the marking criteria.
3. The schedule of dates is very important. It is essential that you meet the RMAssessor 50% and 100% (traditional 40% Batch 1 and 100% Batch 2) deadlines. If you experience problems, you must contact your Team Leader (Supervisor) without delay.
4. If you are in any doubt about applying the mark scheme, consult your Team Leader by telephone or the RMAssessor messaging system, or by email.
5. **Crossed Out Responses**
Where a candidate has crossed out a response and provided a clear alternative then the crossed out response is not marked. Where no alternative response has been provided, examiners may give candidates the benefit of the doubt and mark the crossed out response where legible.

Rubric Error Responses – Optional Questions

Where candidates have a choice of question across a whole paper or a whole section and have provided more answers than required, then all responses are marked and the highest mark allowable within the rubric is given. Enter a mark for each question answered into RM assessor, which will select the highest mark from those awarded. *(The underlying assumption is that the candidate has penalised themselves by attempting more questions than necessary in the time allowed.)*

Multiple Choice Question Responses

When a multiple choice question has only a single, correct response and a candidate provides two responses (even if one of these responses is correct), then no mark should be awarded (as it is not possible to determine which was the first response selected by the candidate).

When a question requires candidates to select more than one option/multiple options, then local marking arrangements need to ensure consistency of approach.

Contradictory Responses

When a candidate provides contradictory responses, then no mark should be awarded, even if one of the answers is correct.

Short Answer Questions (requiring only a list by way of a response, usually worth only **one mark per response**)

Where candidates are required to provide a set number of short answer responses then only the set number of responses should be marked. The response space should be marked from left to right on each line and then line by line until the required number of responses have been considered. The remaining responses should not then be marked. Examiners will have to apply judgement as to whether a 'second response' on a line is a development of the 'first response', rather than a separate, discrete response. *(The underlying assumption is that the candidate is attempting to hedge their bets and therefore getting undue benefit rather than engaging with the question and giving the most relevant/correct responses.)*

Short Answer Questions (requiring a more developed response, worth **two or more marks**)

If the candidates are required to provide a description of, say, three items or factors and four items or factors are provided, then mark on a similar basis – that is downwards (as it is unlikely in this situation that a candidate will provide more than one response in each section of the response space.)

Longer Answer Questions (requiring a developed response)

Where candidates have provided two (or more) responses to a medium or high tariff question which only required a single (developed) response and not crossed out the first response, then only the first response should be marked. Examiners will need to apply professional judgement as to whether the second (or a subsequent) response is a 'new start' or simply a poorly expressed continuation of the first response.

6. Always check the pages (and additional objects if present) at the end of the response in case any answers have been continued there. If the candidate has continued an answer there then add a tick to confirm that the work has been seen.
7. Award No Response (NR) if:
 - there is nothing written in the answer space

Award Zero '0' if:

- anything is written in the answer space and is not worthy of credit (this includes text and symbols).

Team Leaders must confirm the correct use of the NR button with their markers before live marking commences and should check this when reviewing scripts.

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8. The RMAssessor **comments box** is used by your team leader to explain the marking of the practice responses. Please refer to these comments when checking your practice responses. **Do not use the comments box for any other reason.**
If you have any questions or comments for your team leader, use the phone, the RMAssessor messaging system, or e-mail.
9. Assistant Examiners will send a brief report on the performance of candidates to their Team Leader (Supervisor) via email by the end of the marking period. The report should contain notes on particular strengths displayed as well as common errors or weaknesses. Constructive criticism of the question paper/mark scheme is also appreciated.
10. For answers marked by levels of response:
- To determine the level** – start at the highest level and work down until you reach the level that matches the answer
 - To determine the mark within the level**, consider the following:

Descriptor	Award mark
On the borderline of this level and the one below	At bottom of level
Just enough achievement on balance for this level	Above bottom and either below middle or at middle of level (depending on number of marks available)
Meets the criteria but with some slight inconsistency	Above middle and either below top of level or at middle of level (depending on number of marks available)
Consistently meets the criteria for this level	At top of level

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11. Annotations

Annotation	Meaning
/	
?	Unclear
APP	Application
BOD	Benefit of doubt
λ	Omission
×	Incorrect
✓	Correct
E	Expansion of a point
EVAL	Evaluation
IRRL	Significant amount of material which doesn't answer the question
J	Justification
KU	Knowledge and Understanding
NBOD	No benefit of doubt given
REP	Repetition

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Question		Answer	Mark	Guidance
1	(a)	B (Extroversion and Psychoticism)	1	
1	(b)	C (Reticular Activation System)	1	
1	(c)	A (Condition them)	1	
2		<p>1 mark for knowledge of ignoring nurture as a criticism 1 mark for applying this criticism to the theory Or 3 marks for a developed criticism in the context of the theory</p> <p><u>Examples of a 3 mark answer</u> Eysenck's theory ignores nurture because it focuses too much on nature (1) by only looking at neurological factors as a cause for criminal behaviour (1) when there is evidence that the environmental factors play a large part in the development of this behaviour (1).</p> <p>The theory ignores nurture by not recognising the role of the environment and upbringing on criminal behaviour (1) when there is evidence that criminals often grow up in difficult surroundings (1). Instead, this theory only focuses on nature (1).</p>	3	
3		<p>For each criticism;</p> <p>1 mark for a brief or basic criticism 2 marks for a more developed criticism which clearly relates to the study</p> <p>Criticisms may include: culturally biased sample, age bias, issues of social desirability, issues of attrition, low construct validity of measures taken, problems establishing cause and effect, etc.</p>	4 (2 x 2)	If the candidate describes a feature of the study (e.g. the students were all Australian) then this can only be credited in conjunction with an evaluative comment (e.g. the sample was culturally biased). However, it is possible to credit a feature that has some evaluation/judgement in it (e.g. the students were <i>only</i> Australian).

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		<p><u>Examples of a 1 mark answer:</u></p> <ul style="list-style-type: none"> The study was only done on children from Catholic schools. It could only show a relationship. The sample was affected by people dropping out. <p><u>Examples of a 2 mark answer:</u></p> <ul style="list-style-type: none"> As the research was only carried out in Australia (1) its findings may not represent other cultures (1). The sample became less representative (1) when 20% of the original participants dropped out of the study (1). Complex traits like psychoticism and delinquency were measured using rating scales (1) which leads to a lack of construct validity (1). 		
4		<p>1 mark for each correctly matched box as shown below:</p>	3	<p>If there are more than three lines drawn then subtract 1 mark for each additional line.</p> <p>N.B. 'Rape' should not be considered a 'violent' crime in this instance as it is categorised as a 'sexual offence'.</p>
5		<p>1 mark for each correctly placed word as shown below:</p> <p>Social Learning Theory says that criminal behaviour starts with individual finding a role model who they identify with. They then observe their role model's criminal behaviour and are motivated to imitate it. If</p>	5	

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			there is a reward, like money, to reinforce the behaviour then it is likely to continue. Individuals eventually internalise criminal behaviour so it is not easy to get rid of it.		
6	(a)		1 mark for self-report (or survey)	1	
6	(b)		1 mark for 'do not always view criminal behaviour in the same way as (older people)' and/or 'seeing certain types of crime as quite normal'	1	
6	(c)		1 mark for knowing the number of crimes experienced by each person need to be added together 1 mark for dividing this sum by the total number of young adults	2	
6	(d)		1 mark for 8/25 1 mark for workings e.g. $32/100(=16/50)=8/25$	2	
7	(a)		D (Longitudinal study using questionnaires)	1	
7	(b)		B (Mathematics)	1	
7	(c)		A (They believed they had the capacity to change their intelligence)	1	
8	(a)		Likely to be culturally biased (for 1 mark) but do accept other valid types of bias. 1 mark for relating to the study e.g. only children from New York were used. <u>Examples of a 1 mark answer:</u> <ul style="list-style-type: none"> • It was age biased. • Only American children were studied. <u>Examples of a 2 mark answer</u> <ul style="list-style-type: none"> • It was culturally biased (1) as all of the participants were from New York (1). 	2	Do not credit the idea that the sample is small.

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			<ul style="list-style-type: none"> Because it was carried out in a state school (1) it may not represent all socio-economic classes (1). 		
8	(b)		<p>1 mark for a brief but valid suggestion for improving the study. 2 marks for a more developed suggestion.</p> <p>Examples: measure progress in other subjects besides maths, matching participants between conditions, making sure control group also had mindset training afterwards (ethics).</p>	2	Only credit a statement identifying a limitation of the study where it is paired with a relevant improvement.
9			1 mark for 3.2×10^6	1	
10			<p>Level 2 (3-4 marks): There is a clear and informed description of changes.</p> <p>Level 1 (1-2 marks): There is a basic description of changes with some relevance.</p> <p>(0 marks): No creditworthy response.</p> <p>Changes include: fusion of parts of brain at 3 weeks, rapid development mid-pregnancy, 100 billion neurons developed by time of birth, etc.</p> <p><u>Example of a 4 mark answer</u> Pre-natal changes to the brain happen as early as 3 weeks (1) when the fore, mid and hind brain fuse together (1). Other organs develop more quickly than the brain and the brain undergoes most of its development mid-pregnancy (1). By the time a baby is born there are already 100 billion neurons in place (1).</p>	4	If candidate lists different parts of the brain that develop (with no timing to distinguish them) then only award 1 mark for all parts.

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11		1 mark for 0.74 1 mark for workings e.g. $17/23 = 0.739130\dots$	2	Workings can be just the fraction or the full decimal answer.
12	(a)	<p>Level 3 (5 marks): There is a thorough, clear and accurate description of the study which includes both procedure and findings.</p> <p>Level 2 (3-4 marks): There is a clear and accurate description of the study which can include procedure and/or findings.</p> <p>Level 1 (1-2 marks): There is a basic or partial description of the study and there may be some inaccuracies.</p> <p>(0 marks): No creditworthy response.</p> <p>Likely content: method (experiment), sample (Swiss children representing different ages), IV (stage of development), DV (whether the child thinks the number of counters changes), controls (e.g. procedure, questions asked), main findings (older children more likely to say number in row has not changed), conclusions (children in concrete operational stage show ability to conserve more than children in pre-operational stage).</p>	5	Do not credit the same detail twice e.g. if use of Swiss children is credited in (a) as a descriptive detail then do not credit again if used to illustrate cultural bias in (b) – just credit the idea of cultural bias.
12	(b)	<p>Level 3 (5 marks) There is relevant evaluation that offers both breadth and depth.</p> <p>Level 2 (3-4 marks): There is a relevant evaluation that offers either breadth or depth, or possibly both.</p> <p>Level 1 (1-2 marks):</p>	5	

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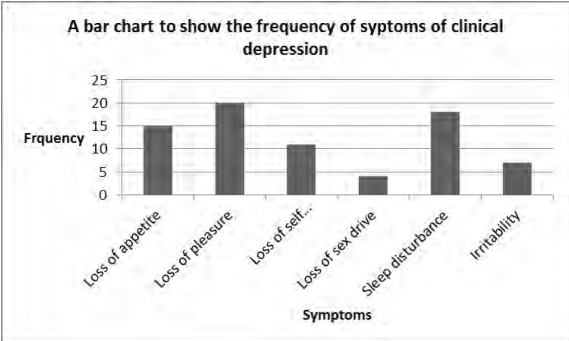
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		<p>There is a limited evaluation of the study which may include generic points.</p> <p>(0 marks): No creditworthy response. Possible evaluation points: culturally biased sample, sample too small to generalise from, artificiality of set up, low construct validity/narrow measure of conservation, the problem of asking the same question twice, issues of using a cross-sectional design, etc.</p>		
13	(a)	C (Hearing voices that do not really exist)	1	
13	(b)	C (1% approximately)	1	
13	(c)	A (Men tend to be diagnosed in their 20s.)	1	
14		<p>1 mark for each key finding relating to neuropsychology.</p> <p><u>Example of a 1 mark answer</u> Amphetamine affected brain activity (1).</p> <p><u>Example of a 2 mark answer</u> There was a difference in blood flow (1) and in activity in the pre-frontal cortex when patients had amphetamine instead of placebo (1).</p> <p><u>Example of a 3 mark answer</u> When the effect of amphetamine was compared with the placebo there was no difference the brain activity during sensori-motor (BAR) task (1). However, amphetamine increased performance on the cognitive (WCST) task, despite reducing blood flow in the brain (1). There were some significant differences in blood flow in particular regions during this task, especially within the pre-frontal cortex (1).</p>	3	<p>From study</p> <ul style="list-style-type: none"> the amphetamine condition indicated a relatively focused, regionally specific activation in the left lateral frontal regions suppression of activation was seen elsewhere in the left cortex in the right hemisphere, activation of the occipital and anterior cingulate cortices reached statistical significance for both the amphetamine and placebo conditions, activation of regional cerebral blood flow over baseline (WCST-BAR) did not reach statistical significance in any of individual regions of interest or in the subcortical or cortical means of either hemisphere there were no significant differences in regional activation (WCST-BAR) between the amphetamine and placebo condition amphetamine levels did not significantly correlate with regional cerebral blood flow [during the BAR task or the WCST], or with the change scores between the BAR and WCST conditions in any region of interest or in any hemisphere

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					<ul style="list-style-type: none"> delineation of the precise neurotransmitter responsible for amphetamine's effects in the present study is complicated by the non-specificity of amphetamine's effects on monoaminergic activity, including but not limited to the release of dopamine.
15	(a)		Loss of pleasure.	1	
15	(b)		<p>1 mark for a title which refers to both measures used on the graph 1 mark for labelling X axis 1 mark for labelling Y axis 1 mark for accurately drawing bars</p> 	4	Full marks can still be awarded if bars are drawn without gaps.
16			<p><u>AO1 marks</u> Description of Tandoc <i>et al.</i>'s study and at least one other study.</p> <p><u>AO3 marks</u> Use of studies for evaluating issues of validity e.g. population validity, ecological validity, construct validity, demand characteristics, social desirability, observer effect, etc.</p> <p>AO1 Level 3 (5-6 marks):</p>	13	<p>For AO1: to be placed in Level 2 or above, the response must refer to both Tandoc <i>et al.</i>'s study into</p>

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		<p>There is a thorough description of studies and a sound understanding of their key features. This is demonstrated with accuracy and clarity. The information presented is relevant and in a very well structured.</p> <p>Level 2 (3-4 marks): There is a good description of studies and a reasonable understanding of their features. This is demonstrated with some accuracy and clarity. The information presented is relevant and in a good structure.</p> <p>Level 1 (1-2 marks): There is a basic description of at least one study and some knowledge of key features of the theory/theories. This may include some inaccuracy. The information has some relevance but is presented with limited structure.</p> <p>(0 marks): No credit worthy response.</p> <p>AO3</p> <p>Level 3 (5-7 marks): There is a thorough evaluation which offers breadth and/or depth covering at least two different points. Points are coherent and relevant and the response is developed in order to reach a substantiated judgement in response to the question.</p> <p>Level 2 (3-4 marks): There is a good evaluation which offers breadth and/or depth covering at least two different points. Points may be brief but should still be relevant and used to reach a supported judgement in response to the question.</p> <p>Level 1 (1-2 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 credit worthy response.</p>		<p>Facebook use and depression and at least one other study from another area of psychology.</p> <p>For AO3: to be placed in Level 2 or above, the response must refer to both Tandoc et al.'s study into Facebook use and depression and at least one other study from another area of psychology.</p>
17		1 mark for the stem and 1 mark for an accurate statement of the IV and DV.	2	If an alternative hypothesis is given then maximum of 1 mark if variables are correctly stated.

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			'There will be no (significant) difference (1) in the participants' ability to concentrate on a written task when they are listening to music with lyrics and music without lyrics. (1)'		If a null hypothesis predicting 'no correlation' is given then no marks. Credit answers where the candidate has operationalised the IV and/or DV e.g. 'There will be no difference in the length of participants' stories when they are listening to music by Bach and music by Harry Styles.'
18			1 mark for the ability to concentrate on a written task	1	If the candidates offers an appropriately operationalised DV then this is creditworthy. If the candidate gives both the DV and the IV, the DV can only be credited if it occurs first. Do not credit an answer that only refers to concentration (without the written task).
19	(a)		1 mark for naming or describing a sampling method. Likely to be random, opportunity or self-selecting/volunteer.	1	
19	(b)		1 mark for a relevant strength of the chosen sampling method. 1 mark for applying this strength to the investigation. <u>Example of a 2 mark answer</u> A strength of random sampling is that there is no bias in selection (1) so I wouldn't be able to just choose people I knew that are used to studying with songs on in the background (1).	2	If 19(a) is left blank, or incorrectly named, or does not match the strength credit for the strength can still be given (but it must be obvious which sampling method is being evaluated). In all these cases, 19 (a) does not receive credit.
19	(c)		1 mark for a relevant weakness of the chosen sampling method. 1 mark for applying this weakness to the investigation. <u>Example of a 2 mark answer</u>	2	If the response to 19(c) does not follow on from 19(a) or 19(b) in terms of what is been credited already then no marks. If no marks have been awarded for 19(a) and 19(b) then the weakness can still be credited (but it must be obvious which sampling method is being evaluated).

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		A weakness of self-selecting samples is certain types of people may not be well represented (1) for example, people that study a lot may be too busy to volunteer their time (1).		
20	(a)	1 mark for naming or describing an experimental design. Likely to be repeated measures or independent measures.	1	Accept matched pairs design.
20	(b)	1 mark for a relevant strength of the chosen experimental method. 1 mark for applying this strength to the investigation. <u>Example of a 2 mark answer</u> A strength of repeated measures designs is that there are no participant variables (1) so, for example, individuals' hearing would stay the same between conditions otherwise this could affect how much any music interfered with the task (1).	2	If 20(a) is left blank, or incorrectly named, or does not match the strength, credit for the strength can still be given (but it must be obvious which experimental design is being evaluated). In all these cases, 20 (a) does not receive credit.
20	(c)	1 mark for a relevant weakness of the chosen experimental method. 1 mark for applying to this weakness to the investigation. <u>Example of a 2 mark answer</u> A weakness of using repeated measures is that participants may experience fatigue in the second condition (1) so they may be tired of writing and do worse because of this and not because a different type of music is being played (1).	2	If the response to 20(c) does not follow on from 20(a) or 20(b) in terms of what is been credited already then no marks. If no marks have been awarded for 20(a) and 20(b) then the weakness can still be credited (but it must be obvious which sampling method is being evaluated).
21		1 mark for identifying a basic procedure and/or one feature of the procedure. 2 marks for a reasonably feasible procedure and/or two features of the procedure.	3	Do not credit features that have been awarded marks in responses to other questions. Creditworthy features could include; <ul style="list-style-type: none"> • type of experiment

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		3 marks for describing a feasible procedure and/or three features of the procedure.		<ul style="list-style-type: none"> • operationalisation of variables • use of controls • ethical considerations • ways of analysing data.
22		<p>1 mark for knowledge of the concept of demand characteristics</p> <p>1 mark for understanding how it may affect behaviour in this investigation</p> <p><u>Example of a 2 mark answer</u> Demand characteristics are cues in the experiment which give away the aim (1) so participants may work out they are supposed to struggle with their writing when I turn on the music and so may do badly on purpose to help out with my results (1).</p>	2	

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