



Cambridge International AS & A Level

PSYCHOLOGY

9990/12

Paper 1 Approaches, Issues and Debates

May/June 2021

MARK SCHEME

Maximum Mark: 60

Published

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge International will not enter into discussions about these mark schemes.

Cambridge International is publishing the mark schemes for the May/June 2021 series for most Cambridge IGCSE™, Cambridge International A and AS Level components and some Cambridge O Level components.

This document consists of **10** printed pages.

Generic Marking Principles

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

GENERIC MARKING PRINCIPLE 1:

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

GENERIC MARKING PRINCIPLE 2:

Marks awarded are always **whole marks** (not half marks, or other fractions).

GENERIC MARKING PRINCIPLE 3:

Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

GENERIC MARKING PRINCIPLE 4:

Rules must be applied consistently, e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

GENERIC MARKING PRINCIPLE 5:

Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).

GENERIC MARKING PRINCIPLE 6:

Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

**Social Science-Specific Marking Principles
(for point-based marking)****1 Components using point-based marking:**

- Point marking is often used to reward knowledge, understanding and application of skills. We give credit where the candidate's answer shows relevant knowledge, understanding and application of skills in answering the question. We do not give credit where the answer shows confusion.

From this it follows that we:

- a** DO credit answers which are worded differently from the mark scheme if they clearly convey the same meaning (unless the mark scheme requires a specific term)
- b** DO credit alternative answers/examples which are not written in the mark scheme if they are correct
- c** DO credit answers where candidates give more than one correct answer in one prompt/numbered/scaffolded space where extended writing is required rather than list-type answers. For example, questions that require *n* reasons (e.g. State two reasons).
- d** DO NOT credit answers simply for using a 'key term' unless that is all that is required. (Check for evidence it is understood and not used wrongly.)
- e** DO NOT credit answers which are obviously self-contradicting or trying to cover all possibilities
- f** DO NOT give further credit for what is effectively repetition of a correct point already credited unless the language itself is being tested. This applies equally to 'mirror statements' (i.e. polluted/not polluted).
- g** DO NOT require spellings to be correct, unless this is part of the test. However spellings of syllabus terms must allow for clear and unambiguous separation from other syllabus terms with which they may be confused (e.g. Corrasion/Corrosion)

2 Presentation of mark scheme:

- Slashes (/) or the word 'or' separate alternative ways of making the same point.
- Semi colons (;) bullet points (•) or figures in brackets (1) separate different points.
- Content in the answer column in brackets is for examiner information/context to clarify the marking but is not required to earn the mark (except Accounting syllabuses where they indicate negative numbers).

3 Annotation:

- For point marking, ticks can be used to indicate correct answers and crosses can be used to indicate wrong answers. There is no direct relationship between ticks and marks. Ticks have no defined meaning for levels of response marking.
- For levels of response marking, the level awarded should be annotated on the script.
- Other annotations will be used by examiners as agreed during standardisation, and the meaning will be understood by all examiners who marked that paper.

Question	Answer	Marks
1(a)	<p>From the study by Milgram (obedience):</p> <p>State how many participants took part in the study.</p> <p>1 mark for correct answer</p> <p>40</p>	1
1(b)	<p>State the highest voltage shock that was labelled on the shock generator.</p> <p>1 mark for correct answer</p> <p>450 (volts)</p>	1
1(c)	<p>The participant (teacher) was given a ‘sample shock’.</p> <p>Describe this procedure.</p> <p>1 mark per correct point made</p> <p>This was always given before the teacher began their role; It was always 45 v; This was done by pressing (third) switch on generator; It was applied to the wrist; Its source was a battery wired to the generator;</p>	3

Question	Answer	Marks
2(a)	<p>From the study by Bandura et al. (aggression):</p> <p>Outline what Bandura et al. meant by ‘imitative verbal aggression’.</p> <p>1 mark for the imitative part 1 mark for the verbal aggression part</p> <p>e.g. This is when the <u>children/participant</u> copied/imitated/repeated (1 mark) The things that were said by the <u>model/model’s</u> verbal aggression (1 mark)</p>	2
2(b)	<p>Identify <u>two</u> examples that were recorded as imitative verbal aggression.</p> <p>1 mark per example</p> <p>‘Sock him’; ‘Hit him (down)’; ‘Kick him’; ‘Throw him (in the air)’; ‘Pow’;</p>	2

Question	Answer	Marks
2(c)	<p>Describe <u>one</u> result about aggressive gun play in the aggressive experimental groups.</p> <p>2 marks comparison/full result 1 mark no meaningful comparison/brief result</p> <p>e.g. Males showed more aggressive (gun) play compared to females (2 marks) Males showed the most aggressive (gun) play in the aggressive male model condition (2 marks) Girls showed the least aggressive (gun) play when the model was an aggressive female (2 marks) Males showed more aggressive (gun) play (1 mark) Females showed the least amount of aggressive (gun) play (1 mark)</p> <p><u>More</u> boys than girls showed (gun) play (0 marks as data is about the average and not number of participants).</p>	2

Question	Answer	Marks
3(a)	<p>From the study by Baron-Cohen et al. (eyes test):</p> <p>Identify <u>three</u> features of the sample used for Group 4.</p> <p>1 mark per correct point made</p> <p>Random sample; General population; N = 14; Not diagnosed with AS/HFA; IQ matched with Group 1/mean IQ = 116; Same age distribution as Group 1/mean age = 28 years;</p>	3
3(b)	<p>Suggest <u>one</u> real-world application based on the results of this study.</p> <p>1 mark for what the application is about 1 mark for how it will be implemented/used</p> <p>e.g. The eyes test could be used as a diagnostic tool for AS/HFA (1 mark: what) Those who score low on the test may show a lack of theory of mind (1 mark: how) Teachers can use the eyes test to see which students struggle with social interactions (1 mark: how) by giving these students extra lessons to help improve (1 mark: what)</p>	2

Question	Answer	Marks
4(a)	<p>Describe <u>two</u> assumptions of the learning approach, using examples other than the study by Saavedra and Silverman (button phobia).</p> <p>2 marks assumption with an example (not from Saavedra and Silverman): 1 mark for assumption + 1 mark for the examples 1 mark assumption with no example</p> <p>e.g. We learn through conditioning (1 mark). For operant we can get rewarded for being good so we are likely to be good again (1 mark: example) Social Learning helps to explain changes in behaviour (1 mark) We observe and imitate behaviours of an aggressive role models and copy that aggression (1 mark: example) We learn through classical conditioning (1 mark) We learn from reinforcement/punishment (1 mark)</p>	4
4(b)	<p>Explain how <u>one</u> finding from the study by Saavedra and Silverman (button phobia) supports <u>one</u> of the assumptions of the learning approach that you have described in (a).</p> <p>1 mark for finding 1 mark for linking it to an assumption highlighted in 4(a). If it does not match assumption can still gain 1 mark for a correct result.</p> <p>e.g. The ratings of distress declined over session time (1 mark: finding) and during these the mother gave positive reinforcement to help shape his behaviour (1 mark: link) by the end of the study the boy could handle buttons (1 mark: finding)</p>	2

Question	Answer	Marks
5(a)	<p>From the study by Dement and Kleitman (sleep and dreams):</p> <p>From the dream-duration estimate part of the study:</p> <p>State how Dement and Kleitman chose whether to wake a participant after 5 minutes or after 15 minutes of REM sleep.</p> <p>1 mark for correct answer</p> <p>At random/randomly/equal chance of being either.</p>	1

Question	Answer	Marks
5(b)	<p>Describe the dream-duration estimates for the participant DN whose responses did <u>not</u> follow the same pattern as others.</p> <p>1 mark per correct statement made</p> <p>e.g. DN was equally likely to get the 15 minute estimation right or wrong; He got estimation of 15 minutes correct 50% of the time/5 times; ORA He got estimation of 5 minutes correct 80% of the time/8 times; ORA He often underestimated how long they were dreaming;</p>	2
5(c)	<p>Outline <u>one</u> strength of this study.</p> <p>1 mark for identifying the strength 1 mark for relating it to Dement & Kleitman</p> <p>e.g. There were controls on some participant/situational variables to aid cause and effect conclusions (1 mark) For example participants were not allowed to drink alcohol/consume caffeine prior to the study (1 mark) There was a standardised procedure to the study to aid replicability/reliability (1 mark) For example participants were not allowed to drink alcohol/consume caffeine prior to the study (1 mark) It was conducted in a laboratory so had good controls that increase (internal) validity (1 mark)</p>	2

Question	Answer	Marks
6	<p>From the study by Laney et al. (false memory):</p> <p>Describe the procedure for Experiment 1 from when the participants returned for Session 2 (approximately one week after Session 1) until they completed the Food History Inventory.</p> <p>1 mark per correct procedural point made</p> <p>They were given false feedback about Session 1; They were told that their responses had been entered into a computer; It had generated a food profile of early childhood; These were presented as if 'tailored to them'; One part was the same for all participants (don't need to name any to gain the mark)(e.g. you disliked spinach); A critical item about asparagus was given (for Love group); Control group had three filler questions; All had to respond about a 'sweets at school' item; Asked to imagine a setting where this experience might have happened/who were you with?; Then they had to rate how much they felt it affected their adult personality; The experimenter then collected the profiles;</p>	5

Question	Answer	Marks
7(a)	<p>From the study by Pepperberg (parrot learning):</p> <p>The ‘model/rival technique’ was used where one human acted as a trainer.</p> <p>Describe this technique.</p> <p>1 mark per correct point made</p> <p>The trainer presents objects to a second human/learner; They ask questions about the objects; The model/rival is praised/rewarded the correct answers; They show disapproval for incorrect answers by the model/rival; The second human acts as model for Alex/the bird; And as a rival for the trainer’s attention; The role of model and rival were reversed;</p>	3
7(b)	<p>Describe what the secondary trainer did during the ‘test procedures’.</p> <p>1 mark per correct point made</p> <p>This trainer would present Alex with an object; These were varied but in a predetermined order; Asked a series of questions like ‘What colour?’ ‘What’s same?’ etc.; (need example question); Alex got rewarded for correct/scolded for incorrect answer; Alex had to vocalise in English; Secondary questions were used to clarify answers (if necessary);</p>	3

Question	Answer	Marks
8(a)	<p>Research in the laboratory has shown that people are more likely to help someone of a different race to themselves.</p> <p>Explain <u>two</u> ways the study by Piliavin et al. (subway Samaritans) differs from this research.</p> <p>1 mark for identifying a difference 1 mark for describing the element of the study supporting the difference</p> <p>e.g. Piliavin’s study was not in a laboratory/controlled setting (1 mark: identify) as it took place in a subway car in New York (1 mark: describe) The different race helping was not seen as much in Piliavin (1 mark: identify) as people were more likely to help same race victim when <u>drunk</u> (1 mark: describe) 68% of spontaneous helpers of a white victim were white which is higher than racial distribution in the car (1 mark: describe)</p>	4

Question	Answer	Marks										
8(b)	<p>Explain <u>one</u> similarity and <u>one</u> difference between the study by Piliavin et al. (subway Samaritans) and the study by Milgram (obedience).</p> <p>4 marks available for the similarity, e.g. ethics, situational, controls, quantitative data 4 marks available for the difference, e.g. setting, participants, use of a stooge.</p> <p>Creditworthy points include ethics, situational, controls, quantitative data, setting, participants, use of a stooge.</p> <p>Similarity e.g. 4 marks Both the Piliavin and Milgram studies have ethical issues of deception. In the Milgram study, participants believed they were giving real electric shocks to a stranger who could not remember word pairs. In the Piliavin study, the participants were led to believe that the drunk or ill victim was actually in need of help.</p> <p>e.g. 3 marks Both the Piliavin and Milgram studies have ethical issues of deception. In the Milgram study, participants believed they were giving real electric shocks to a complete stranger who could not remember word pairs.</p> <p>e.g. 2 marks Both the Piliavin and Milgram studies have ethical issues of deception, as in both, participants never knew that the scenarios were fake.</p> <p>e.g. 1 mark Both the Piliavin and Milgram studies had ethical issues.</p> <table border="1" data-bbox="320 1290 1310 1850"> <tbody> <tr> <td data-bbox="320 1290 1158 1391">The similarity/difference is well explained using both studies as examples.</td> <td data-bbox="1158 1290 1310 1391">4 marks</td> </tr> <tr> <td data-bbox="320 1391 1158 1518">The similarity/difference is well explained but only one study is used as an example OR both studies used briefly.</td> <td data-bbox="1158 1391 1310 1518">3 marks</td> </tr> <tr> <td data-bbox="320 1518 1158 1686">The similarity/difference is brief with an attempt at using at least one study as an example OR The similarity/difference is well explained but there is no study evidence.</td> <td data-bbox="1158 1518 1310 1686">2 marks</td> </tr> <tr> <td data-bbox="320 1686 1158 1787">The similarity/difference is brief with no attempt at using studies as examples.</td> <td data-bbox="1158 1686 1310 1787">1 mark</td> </tr> <tr> <td data-bbox="320 1787 1158 1850">No creditworthy material.</td> <td data-bbox="1158 1787 1310 1850">0 marks</td> </tr> </tbody> </table>	The similarity/difference is well explained using both studies as examples.	4 marks	The similarity/difference is well explained but only one study is used as an example OR both studies used briefly.	3 marks	The similarity/difference is brief with an attempt at using at least one study as an example OR The similarity/difference is well explained but there is no study evidence.	2 marks	The similarity/difference is brief with no attempt at using studies as examples.	1 mark	No creditworthy material.	0 marks	8
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Question	Answer	Marks
9	<p>Evaluate the study by Schachter and Singer (two factors in emotion) in terms of <u>two</u> strengths and <u>two</u> weaknesses. At least one of your evaluation points <u>must</u> be about the use of quantitative data.</p> <p>Suitable strengths include: quantitative data, internal validity, reliability Suitable weaknesses include: quantitative data, external validity, generalisability, ethics.</p> <div style="border: 1px solid black; padding: 5px;"> <p>Level 4 (8–10 marks)</p> <ul style="list-style-type: none"> • Evaluation is comprehensive. • Answer demonstrates evidence of careful planning, organisation and selection of material. • Analysis (valid conclusions that effectively summarise issues and arguments) is evident throughout. • Answer demonstrates an excellent understanding of the material. </div> <div style="border: 1px solid black; padding: 5px;"> <p>Level 3 (6–7 marks)</p> <ul style="list-style-type: none"> • Evaluation is good. • Answer demonstrates some planning and is well organised. • Analysis is often evident but may not be consistently applied. • Answer demonstrates a good understanding of the material. </div> <div style="border: 1px solid black; padding: 5px;"> <p>Level 2 (4–5 marks)</p> <ul style="list-style-type: none"> • Evaluation is mostly appropriate but limited. • Answer demonstrates limited organisation or lacks clarity. • Analysis is limited. • Answer lacks consistent levels of detail and demonstrates a limited understanding of the material. </div> <div style="border: 1px solid black; padding: 5px;"> <p>Level 1 (1–3 marks)</p> <ul style="list-style-type: none"> • Evaluation is basic. • Answer demonstrates little organisation. • There is little or no evidence of analysis. • Answer does not demonstrate understanding of the material. </div> <div style="border: 1px solid black; padding: 5px;"> <p>Level 0 (0 marks) No response worthy of credit.</p> </div>	10