



Cambridge International AS & A Level

PSYCHOLOGY

9990/12

Paper 1 Approaches, Issues and Debates

October/November 2020

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 October/November 2020 series for most Cambridge IGCSE™, Cambridge International A and AS Level and Cambridge Pre-U 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.

Question	Answer	Marks
1	From the study by Yamamoto et al. (chimpanzee helping):	
1(a)	<p>Name <u>one</u> of the objects on the tray for the chimpanzees, other than the stick or the straw.</p> <p>1 mark for a correct answer</p> <p>Hose; Chain; Rope, (Paint) Brush; Belt.</p>	1
1(b)	<p>Outline the difference between an ‘upon-request’ offer and a ‘voluntary’ offer in this study.</p> <p>1 mark for correct definition used in study</p> <p>Upon-request: The helper gave a tool to the chimp who had requested it.</p> <p>Voluntary offer: The helper gave a tool to the chimp <i>without</i> any request (from the recipient).</p>	2
1(c)	<p>Outline <u>one</u> conclusion from this study.</p> <p>2 marks = full conclusion 1 mark = partial conclusion 0 marks = purely results</p> <p>The study suggests that chimpanzees can target help; when they understand the needs of another chimpanzee (2 marks); Chimpanzees do show altruistic behaviour but they need to see the situation (2 marks); Chimpanzees can understand what other chimpanzees want (1 mark); Chimpanzees help other chimpanzees / show altruism towards other chimpanzees (1 mark); Ayumu was the only chimpanzee to look through the window in the Can’t See Condition hence he was better at this task (0 marks).</p>	2

Question	Answer	Marks
2	In the euphoria condition in the study by Schachter and Singer (two factors in emotion), a stooge performed a series of standardised behaviours. An observer categorised any behaviours shown by the participant. One category was ‘initiates new activity’.	
2(a)(i)	<p>Outline how the category of ‘initiates new activity’ was operationalised in this study.</p> <p>1 mark per correct point</p> <p>If the participant gave creative euphoria; That is, they initiated euphoric behaviour outside of the stooge’s routine; Therefore, the behaviour had to be one that had never been seen by the participant (from the stooge).</p>	2
2(a)(ii)	<p>Name <u>one</u> behaviour shown by a participant in this study that was categorised as ‘initiates new activity’.</p> <p>1 mark for correct answer.</p> <p>(Threw) open the window; Laughing; Throwing paper basketballs; Hula hooped (on neck and leg).</p>	1
2(b)	<p>Describe the results from the Activity Index in the euphoria condition for the Epinephrine Informed (Epi Inf) group compared to the Epinephrine Misinformed (Epi Mis) group. You <u>must</u> use data in your answer.</p> <p>3 marks = comparison result with correct data 2 marks = comparison result with incorrect data/no data 1 mark = one result (e.g. for just for EPI-INF)</p> <p>e.g. 3 marks: The EPI-INF scored lower with a score of 12 compared to the EPI-MIS with a score of 22.</p> <p>e.g. 2 marks: The EPI-INF scored lower on the index compared to the EPI-MIS; The EPI-MIS scored higher on the index compared to the EPI-INF.</p> <p>e.g. 1 mark: The EPI-MIS scored the higher/The EPI-INF scored lower.</p>	3

Question	Answer	Marks										
3	<p>Explain one or more real-world applications of the study by Laney et al. (false memory). Do <u>not</u> refer to more than three applications in your answer.</p> <p>Examples include:</p> <p>Healthier diets; Helping cancer patients improve their diets / likelihood of eating; Treating PTSD.</p> <p>This will be band marked as follows:</p> <table border="1"> <thead> <tr> <th>Marks</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>5</td> <td>One application suggested in depth and it is clear what the application is and how it will be achieved; OR More than one application suggested in less depth but still clearly showing what the application is and how it will be achieved.</td> </tr> <tr> <td>3–4</td> <td>One application suggested which has some detail with the application identifiable and how it will be achieved; OR More than one application suggested that are brief but the application is identifiable with how it will be achieved.</td> </tr> <tr> <td>1–2</td> <td>One or more application suggested that are/is brief but may lack clarity as to what the application is and/or how it will be achieved.</td> </tr> <tr> <td>0</td> <td>No creditworthy real-world application or description of study only.</td> </tr> </tbody> </table>	Marks	Description	5	One application suggested in depth and it is clear what the application is and how it will be achieved; OR More than one application suggested in less depth but still clearly showing what the application is and how it will be achieved.	3–4	One application suggested which has some detail with the application identifiable and how it will be achieved; OR More than one application suggested that are brief but the application is identifiable with how it will be achieved.	1–2	One or more application suggested that are/is brief but may lack clarity as to what the application is and/or how it will be achieved.	0	No creditworthy real-world application or description of study only.	5
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4	From the study by Milgram (obedience):	
4(a)	<p>Identify <u>two</u> characteristics of the learner in this study.</p> <p>1 mark per correct characteristic</p> <p>47 year old; Male; Accountant; Irish-American (stock); Mild-mannered; Likeable.</p>	2

Question	Answer	Marks
4(b)	<p>Describe the sample of participants used in this study.</p> <p>1 mark per correct point</p> <p>N=40; (all) male; Aged 20–50 years; From New Haven area; Wide range of occupations; Postal clerks, teachers, salesman, engineers, laborers (1 mark for any 2); Range of educational levels; Readers of a local newspaper; Recruited via volunteer sampling.</p>	3
4(c)	<p>Explain why this study is from the social approach.</p> <p>2 marks = clearly linked to social approach (either through example or assumption) 1 mark = partially linked to social approach/assumption of social approach only</p> <p>e.g.: The study was looking at how an individual affects people's ability to be obedient (1 mark). The experimenter would give prods to participants when they refused to stop to try to keep them giving larger and larger shocks (1 mark).</p>	2
5	<p>Describe the procedure of the study by Andrade (doodling) from the point when the tape had finished playing.</p> <p>1 mark per correct procedural point made</p> <p>The experimenter collected in the response sheets; They engaged participants (for 1 minute) in conversation; The experimenter apologised for misleading them about the memory test / they were given a surprise recall test; Half the participants were asked to recall names/party-goers first; Half the participants were asked to recall the places mentioned first; Debriefing then happened; Participants were asked if they suspected a memory test.</p>	4

Question	Answer	Marks
6	<p>Describe the psychology that is being investigated in the study by Bandura et al. (aggression).</p> <p>1 mark per 'psychology' point made 1 identification mark is available 1 mark available for an explicit example from the study</p> <p>Creditworthy 'psychology' includes Social Learning Theory, frustration-aggression, delayed imitation.</p> <p>e.g.: Social Learning theory was being investigated which centres around observing and imitating behaviours; People pay attention to a role model; They retain this information in their memory; They must feel like they are capable of imitating the behaviour; They must feel motivated to want to imitate the behaviour / feel will get rewarded for imitation.</p> <p>Aggression can be physical (hitting) and verbal (shouting).</p> <p>Delayed imitation is when someone witnesses a behaviour at one time point, but only reproduces that behaviour at a different time point.</p>	5

Question	Answer	Marks
7	From the study by Pepperberg (parrot learning):	
7(a)	<p>Outline <u>one</u> aim of this study.</p> <p>2 marks = full aim 1 mark = partial aim</p> <p>e.g.: To investigate whether a parrot could learn the concepts of same/different (2 marks); To investigate whether a parrot could comprehend symbolic understanding of same/different (2 marks); To see if a parrot can differentiate between objects (1 mark); To test animal cognition in a parrot (1 mark).</p>	2
7(b)	<p>Outline <u>one</u> methodological weakness of this study.</p> <p>1 mark = appropriate methodological weakness 1 mark = applying it to Pepperberg</p> <p>e.g.: The sample size was one, making generalisability difficult (1 mark). Alex may have been 'qualitatively' different to other parrots so he may not represent a large population of them / wild parrots (1 mark); The study lacked ecological validity (1 mark).</p>	2

Question	Answer	Marks
7(c)	<p>Suggest <u>one</u> real-world application based on the procedure of this study.</p> <p>1 mark for what the application is (clearly based on Pepperberg) 1 mark for how it will be achieved</p> <p>e.g.: Teaching animals using the Model/Rival Technique can be used in other settings / therapy settings (1 mark: how); Service dogs may be taught which tablets are same/different for people who need help identifying the correct medication (1 mark: what); Teaching children using the Model/Rival Technique can be used in the classroom (1 mark: how).</p>	2
8(a)	<p>Outline what is meant by individual and situational explanations of behaviour, using any examples. Do <u>not</u> refer to the study by Piliavin et al. (subway Samaritans) in your answer.</p> <p>1 mark = defining individual + 1 mark example (non-Piliavin) 1 mark = defining situational + 1 mark example (non-Piliavin)</p> <p>e.g.:</p> <p>The individual explanation states that we behave because of our personality (1 mark). For example, a person wants to go snowboarding because they are an extravert (1 mark);</p> <p>The situational explanation states that we behaviour because of the environment we find ourselves in / our surroundings / other people around us (1 mark). For example, in the Bandura study the children imitated the model later on because they had already witnessed/observed the model acting aggressively (so they did).</p>	4

Question	Answer	Marks																		
8(b)	<p>Explain how <u>one</u> result from the study by Piliavin et al. supports the individual explanation of helping behaviour and how <u>one</u> result supports the situational explanation of helping behaviour.</p> <p>For each result:</p> <table border="1" data-bbox="320 450 1308 1279"> <thead> <tr> <th data-bbox="320 450 437 512">Level</th> <th data-bbox="437 450 1176 512">Criteria</th> <th data-bbox="1176 450 1308 512">Marks</th> </tr> </thead> <tbody> <tr> <td data-bbox="320 512 437 647">4</td> <td data-bbox="437 512 1176 647">The result presented has a meaningful comparison and the candidate clearly explains how the result supports individual/situational.</td> <td data-bbox="1176 512 1308 647">4</td> </tr> <tr> <td data-bbox="320 647 437 880">3</td> <td data-bbox="437 647 1176 880">The result presented has a meaningful comparison and there is a brief attempt at explaining how the result supports individual/situational; The result presented has no meaningful comparison but the candidate clearly explains how the result supports individual/situational.</td> <td data-bbox="1176 647 1308 880">3</td> </tr> <tr> <td data-bbox="320 880 437 1113">2</td> <td data-bbox="437 880 1176 1113">The result presented has a meaningful comparison, but there is no attempt at explanation or explanation is not about individual/situational; The result presented is not clear but there is an attempt at explaining how the result supports individual/situational.</td> <td data-bbox="1176 880 1308 1113">2</td> </tr> <tr> <td data-bbox="320 1113 437 1211">1</td> <td data-bbox="437 1113 1176 1211">The result presented has no meaningful comparison or there is a basic attempt at explaining.</td> <td data-bbox="1176 1113 1308 1211">1</td> </tr> <tr> <td data-bbox="320 1211 437 1279">0</td> <td data-bbox="437 1211 1176 1279">No creditworthy answer.</td> <td data-bbox="1176 1211 1308 1279">0</td> </tr> </tbody> </table> <p data-bbox="316 1312 1302 1547">e.g. individual: The observers recorded comments from people about their helping or non-helping behaviour. Examples of these were 'I wish I could help him but I am not strong enough' or 'It's for men to help'. These are individual beliefs about the incident and can help to explain helping/non-helping behaviour. Each person had a different 'take' on the incident and decided what to do based on that.</p> <p data-bbox="316 1581 1286 1816">e.g. situational: Only on 73% of trials did people help a black drunk victim whereas for the other three conditions (e.g. white drunk victim), on 100% of trials was help given when no model as present. Clearly, the situation that involved an interaction between a particular race and condition of victim stopped some people from helping. This situation had decreased helping behaviour in people in those trials.</p>	Level	Criteria	Marks	4	The result presented has a meaningful comparison and the candidate clearly explains how the result supports individual/situational.	4	3	The result presented has a meaningful comparison and there is a brief attempt at explaining how the result supports individual/situational; The result presented has no meaningful comparison but the candidate clearly explains how the result supports individual/situational.	3	2	The result presented has a meaningful comparison, but there is no attempt at explanation or explanation is not about individual/situational; The result presented is not clear but there is an attempt at explaining how the result supports individual/situational.	2	1	The result presented has no meaningful comparison or there is a basic attempt at explaining.	1	0	No creditworthy answer.	0	8
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9	<p>Evaluate the study by Dement and Kleitman (sleep and dreams) in terms of <u>two</u> strengths and <u>two</u> weaknesses. At least one of your evaluation points <u>must</u> be about generalisations.</p> <p>Strengths include: reliability, qualitative data, quantitative data Weaknesses include: ethics, validity (external), generalisability</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