



## Cambridge International AS & A Level

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PSYCHOLOGY

9990/13

Paper 1 Approaches, Issues and Debates

October/November 2020

MARK SCHEME

Maximum Mark: 60

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**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.

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This document consists of **9** 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        | <b>From the study by Schachter and Singer (two factors in emotion):</b>   |       |
| 1(a)     | <p><b>Two stooges were used to manipulate emotional states. One of these stooges attempted to manipulate euphoria.</b></p> <p><b>Name the other emotional state manipulated in this study.</b></p> <p>1 mark for correct answer</p> <p>Anger/angry.</p>   | 1     |
| 1(b)     | <p><b>Name <u>two</u> categories an observer used to code the participants' behaviour during the euphoria conditions.</b></p> <p>1 mark per correct category named</p> <p>Joins in activity;<br/>Initiates new activity;<br/>Ignores stooge;<br/>Watches stooge.</p>  | 2     |
| 1(c)     | <p><b>Outline <u>one</u> conclusion from this study.</b></p> <p>2 marks = full conclusion<br/>1 mark = partial conclusion<br/>0 marks = purely results</p> <p>e.g.:</p> <p>There are two factors involved when we experience emotions:<br/>a physiological/biological one and a psychological/cognitive one (2 marks);</p> <p>The findings supported the two-factor theory of emotion (1 mark);</p> <p>The highest pulse rate change was in the anger condition with EPI-IGN (0 marks).</p> | 2     |

| Question | Answer  | Marks |
|----------|---|-------|
| 2(a)     | <p><b>In the study by Pepperberg, Alex the parrot was trained using the Model/Rival technique.</b></p> <p><b>Outline the procedure of this technique.</b></p> <p>1 mark per correct point</p> <p>One human acts as a trainer to a second human;<br/>They present objects and ask questions about the objects;<br/>They are given praise and rewarded for correct answers;<br/>They show disapproval of incorrect answers;<br/>They also act as a rival for the trainer's attention;<br/>The parrot is allowed to participate in any verbal exchanges.</p> | 3     |

| Question | Answer   | Marks |
|----------|--|-------|
| 2(b)     | <p><b>Name <u>one</u> colour, <u>one</u> shape and <u>one</u> material that Alex the parrot could already vocalise before the study began.</b></p> <p>1 mark per correct answer<br/>If more than one given, only mark the first answer.</p> <p><b>Colour:</b> green, red/rose, blue, yellow, grey (1 mark).</p> <p><b>Shape:</b> 2-corners, 3-corners, 4-corners, 5-corners, football, triangular, square, pentagon (1 mark);</p> <p><b>Material:</b> paper, wood, (raw)hide, cork (1 mark).</p> | 3     |

| Question   | Answer  | Marks |             |          |  |            |  |            |   |          |  |   |
|------------|---|-------|-------------|----------|--|------------|--|------------|---|----------|--|---|
| 3          | <p><b>Explain one or more real-world applications of the study by Milgram (obedience).</b><br/><b>Do <u>not</u> refer to more than three applications in your answer.</b></p> <p>Suitable example include:</p> <p>War crimes;<br/>Explaining antisocial behaviours.</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><b>5</b></td> <td><b>One</b> application suggested in depth and it is clear what the application is and how it will be achieved;<br/><b>OR</b><br/><b>More than one</b> application suggested in less depth but still clearly showing what the application is and how it will be achieved.</td> </tr> <tr> <td><b>3-4</b></td> <td><b>One</b> application suggested which has some detail with the application identifiable and how it will be achieved;<br/><b>OR</b><br/><b>More than one</b> application suggested that are brief, but the application is identifiable with how it will be achieved.</td> </tr> <tr> <td><b>1-2</b></td> <td><b>One or more</b> 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><b>0</b></td> <td>No creditworthy real-world application or description of study only.</td> </tr> </tbody> </table> | Marks | Description | <b>5</b> | <b>One</b> application suggested in depth and it is clear what the application is and how it will be achieved;<br><b>OR</b><br><b>More than one</b> application suggested in less depth but still clearly showing what the application is and how it will be achieved. | <b>3-4</b> | <b>One</b> application suggested which has some detail with the application identifiable and how it will be achieved;<br><b>OR</b><br><b>More than one</b> application suggested that are brief, but the application is identifiable with how it will be achieved. | <b>1-2</b> | <b>One or more</b> application suggested that are/is brief but may lack clarity as to what the application is and/or how it will be achieved. | <b>0</b> | No creditworthy real-world application or description of study only. | 5 |
| Marks      | Description   |       |             |          |  |            |  |            |   |          |  |   |
| <b>5</b>   | <b>One</b> application suggested in depth and it is clear what the application is and how it will be achieved;<br><b>OR</b><br><b>More than one</b> application suggested in less depth but still clearly showing what the application is and how it will be achieved.  |       |             |          |  |            |  |            |   |          |  |   |
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| <b>1-2</b> | <b>One or more</b> application suggested that are/is brief but may lack clarity as to what the application is and/or how it will be achieved.   |       |             |          |  |            |  |            |   |          |  |   |
| <b>0</b>   | No creditworthy real-world application or description of study only.  |       |             |          |  |            |  |            |   |          |  |   |

| Question | Answer   | Marks    |
|----------|--|----------|
| 4        | <b>From the study by Piliavin et al. (subway Samaritans):</b>  |          |
| 4(a)     | <p><b>Outline <u>one</u> way in which the participants were deceived in this study.</b></p> <p><b>2 marks = full answer</b><br/><b>1 mark = partial answer</b></p> <p>e.g.:</p> <p>The incident of someone falling over was not real (1 mark). The ‘participants’ witnessing it did not know that it was part of a study (1 mark).<br/>They thought the victim was drunk (1 mark).</p> <p>They thought that the model was just another person (like them) (1 mark).</p>  | <b>2</b> |
| 4(b)     | <p><b>Describe the sample of participants used in this study.</b></p> <p><b>1 mark per correct point</b></p> <p>(Approximately) 4450;<br/>Travelling on a (New York) subway;<br/>45% black / 55% white;<br/>Unsolicited / never knew / never asked to participate;<br/>Males <b>and</b> females;<br/>between X and Y stations / between X and Y times / in either direction.</p>   | <b>3</b> |
| 4(c)     | <p><b>Explain why this study is from the social approach.</b></p> <p><b>2 marks = clearly linked to social approach (either through example or assumption)</b><br/><b>1 mark = partially linked to social approach / assumption of the social approach only</b></p> <p>e.g.:</p> <p>One of the assumptions of the social approach is that behaviour is influenced by other individuals. This was clearly shown here as fewer people helped when a model had already offered help (compared to when no model was present) (2 marks).</p> <p>They were affected by the social context of witnessing a drunk person needing help (1 mark).</p> <p>When there was a larger group, it affected their behaviour as they were faster at helping (1 mark).</p> | <b>2</b> |

| Question | Answer  | Marks |
|----------|---|-------|
| 5        | <p><b>Describe how Saavedra and Silverman used the Child Anxiety and Phobia Program to diagnose the boy who had a phobia of buttons.</b></p> <p>1 mark per correct point</p> <p><b>Both</b> mother and child were interviewed;<br/>Using a standardised interview schedule for phobia;<br/>This was the ADIS-C/P;<br/>He was also assessed against DSM-IV;<br/>Both of these had to produce a 'positive' result of a phobia of buttons.</p> | 4     |

| Question | Answer  | Marks |
|----------|---|-------|
| 6        | <p><b>Describe the psychology that is being investigated in the study by Dement and Kleitman (sleep and dreams).</b></p> <p>1 mark per 'psychology' point made<br/>1 identification mark is available<br/>1 mark available for an explicit example from the study</p> <p>Creditworthy 'psychology' includes sleep patterns, dreaming, REM, nREM, EEGs.</p> <p>e.g.:</p> <p>Rapid Eye Movement / REM sleep is a phase of sleep where a person is paralysed;<br/>Their eyes flicker and they can breathe but all other muscles are paralysed;<br/>Non Rapid Eye Movement / nREM sleep are the other stages of sleep and they differ in brain activity;</p> <p>Dreaming is a subjective experience of imagery while we are asleep;</p> <p>Electroencephalograms (EEGs) measure brain wave activity;<br/>They are used to measure the amplitude and frequency of brain waves.</p> | 5     |

| Question | Answer   | Marks |
|----------|--|-------|
| 7        | <p><b>From the study by Baron-Cohen et al. (eyes test):</b></p>  |       |
| 7(a)     | <p><b>Outline <u>one</u> aim of this study.</b></p> <p>2 marks = full aim<br/>1 mark = brief/partial aim</p> <p>e.g.:</p> <p>To investigate if people diagnosed with AS/HFA perform less well / poorly on the (Revised) Eyes Test (2 marks);<br/>To improve the original eyes test (1 mark);<br/>To investigate sex differences in the eyes test (1 mark).</p> | 2     |

| Question | Answer   | Marks |
|----------|--|-------|
| 7(b)     | <p><b>Outline <u>one</u> methodological weakness of this study.</b></p> <p>1 mark = identifying an appropriate methodological weakness<br/>1 mark = applying it to Baron-Cohen</p> <p>e.g.:<br/>The eyes test lacks mundane realism (1 mark). People do not judge emotions purely on eyes as they may use other cues like body language and speech to judge (1 mark).</p> <p>The sample size for the AS/HFA group was small (1 mark).</p>  | 2     |
| 7(c)     | <p><b>Suggest <u>one</u> real-world application based on the procedure of this study.</b></p> <p>1 mark for what the application is (clearly based on Baron-Cohen)<br/>1 mark for how it will be achieved</p> <p>e.g.:<br/>Teachers may wish to use the Eyes Test to see what level of social intelligence their students have (1 mark: how). Those scoring low could have extra lessons to help improve their detection of emotions (1 mark: what).</p> <p>Psychologists may wish to use the Eyes Test to help diagnose autism (1 mark: what). Patients could take the test alongside DSM/ICD criteria to ensure a correct diagnosis happens (1 mark: how).</p> | 2     |

| Question | Answer   | Marks |
|----------|--|-------|
| 8(a)     | <p><b>Outline what is meant by individual and situational explanations of behaviour, using any examples. Do <u>not</u> refer to the study by Bandura et al. (aggression) in your answer.</b></p> <p>1 mark = defining individual + 1 mark example (non-Bandura)<br/>1 mark = defining situational + 1 mark example (non-Bandura)</p> <p>e.g.:<br/>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 Milgram study people were obedient because they were in a (prestigious) university.</p> | 4     |

| Question | Answer   | Marks |          |       |   |  |   |   |   |   |   |   |   |   |  |   |   |                         |   |   |
|----------|--|-------|----------|-------|---|--|---|---|---|---|---|---|---|---|--|---|---|-------------------------|---|---|
| 8(b)     | <p><b>Explain how <u>one</u> result from the study by Bandura et al. supports the individual explanation of aggression and how <u>one</u> result supports the situational explanation of aggression.</b></p> <p>For each result:</p> <table border="1" data-bbox="320 450 1326 1346"> <thead> <tr> <th data-bbox="320 450 435 512">Level</th> <th data-bbox="435 450 1211 512">Criteria</th> <th data-bbox="1211 450 1326 512">Marks</th> </tr> </thead> <tbody> <tr> <td data-bbox="320 512 435 647">4</td> <td data-bbox="435 512 1211 647">The result presented has a meaningful comparison <b>and</b> the candidate clearly explains how the result supports individual/situational.</td> <td data-bbox="1211 512 1326 647">4</td> </tr> <tr> <td data-bbox="320 647 435 916">3</td> <td data-bbox="435 647 1211 916">The result presented has a meaningful comparison <b>and</b> there is a brief attempt at explaining how the result supports individual/situational;<br/><br/>The result presented has <b>no</b> meaningful comparison, <b>but</b> the candidate clearly explains how the result supports individual/situational.</td> <td data-bbox="1211 647 1326 916">3</td> </tr> <tr> <td data-bbox="320 916 435 1184">2</td> <td data-bbox="435 916 1211 1184">The result presented has a meaningful comparison, <b>but</b> there is no attempt at explanation or explanation is not about individual/situational;<br/><br/>The result presented is not clear, <b>but</b> there is an implicit attempt at explaining how the result supports individual/situational.</td> <td data-bbox="1211 916 1326 1184">2</td> </tr> <tr> <td data-bbox="320 1184 435 1279">1</td> <td data-bbox="435 1184 1211 1279">The result presented has <b>no</b> meaningful comparison <b>or</b> there is a basic attempt at explaining.</td> <td data-bbox="1211 1184 1326 1279">1</td> </tr> <tr> <td data-bbox="320 1279 435 1346">0</td> <td data-bbox="435 1279 1211 1346">No creditworthy answer.</td> <td data-bbox="1211 1279 1326 1346">0</td> </tr> </tbody> </table> <p data-bbox="320 1379 1326 1581">e.g. individual:<br/>Around one-third of participants in the aggressive conditions imitated the <i>nonaggressive</i> remarks/speech made by the model. None of the nonaggressive/control group did. This could indicate that some of the participants (the 1/3) had a personality type, etc., that meant they were more likely to imitate <i>any</i> behaviour.</p> <p data-bbox="320 1615 1326 1783">e.g. situational:<br/>Participants were much more likely to imitate physical/verbal aggression after observing an aggressive model compared to a non-aggressive model. This could indicate that the situation of having to witness aggression increased the likelihood that the participant imitated aggressive acts (physical/verbal).</p> | Level | Criteria | Marks | 4 | The result presented has a meaningful comparison <b>and</b> the candidate clearly explains how the result supports individual/situational. | 4 | 3 | The result presented has a meaningful comparison <b>and</b> there is a brief attempt at explaining how the result supports individual/situational;<br><br>The result presented has <b>no</b> meaningful comparison, <b>but</b> the candidate clearly explains how the result supports individual/situational. | 3 | 2 | The result presented has a meaningful comparison, <b>but</b> there is no attempt at explanation or explanation is not about individual/situational;<br><br>The result presented is not clear, <b>but</b> there is an implicit attempt at explaining how the result supports individual/situational. | 2 | 1 | The result presented has <b>no</b> meaningful comparison <b>or</b> there is a basic attempt at explaining. | 1 | 0 | No creditworthy answer. | 0 | 8 |
| Level    | Criteria   | Marks |          |       |   |  |   |   |   |   |   |   |   |   |  |   |   |                         |   |   |
| 4        | The result presented has a meaningful comparison <b>and</b> the candidate clearly explains how the result supports individual/situational.   | 4     |          |       |   |  |   |   |   |   |   |   |   |   |  |   |   |                         |   |   |
| 3        | The result presented has a meaningful comparison <b>and</b> there is a brief attempt at explaining how the result supports individual/situational;<br><br>The result presented has <b>no</b> meaningful comparison, <b>but</b> the candidate clearly explains how the result supports individual/situational.  | 3     |          |       |   |  |   |   |   |   |   |   |   |   |  |   |   |                         |   |   |
| 2        | The result presented has a meaningful comparison, <b>but</b> there is no attempt at explanation or explanation is not about individual/situational;<br><br>The result presented is not clear, <b>but</b> there is an implicit attempt at explaining how the result supports individual/situational.  | 2     |          |       |   |  |   |   |   |   |   |   |   |   |  |   |   |                         |   |   |
| 1        | The result presented has <b>no</b> meaningful comparison <b>or</b> there is a basic attempt at explaining.   | 1     |          |       |   |  |   |   |   |   |   |   |   |   |  |   |   |                         |   |   |
| 0        | No creditworthy answer.  | 0     |          |       |   |  |   |   |   |   |   |   |   |   |  |   |   |                         |   |   |



| Question | Answer  | Marks |
|----------|---|-------|
| 9        | <p><b>Evaluate the study by Yamamoto et al. (chimpanzee helping) in terms of <u>two</u> strengths and <u>two</u> weaknesses. At least one of your evaluation points <u>must</u> be about using repeated measures.</b></p> <p>Strengths include: use of repeated measures, validity (internal), reliability, ethics</p> <p>Weaknesses include: use of repeated measures, ethics, validity (external)</p> <div style="border: 1px solid black; padding: 5px;"> <p><b>Level 4 (8–10 marks)</b></p> <ul style="list-style-type: none"> <li>• Evaluation is comprehensive;</li> <li>• Answer demonstrates evidence of careful planning, organisation and selection of material;</li> <li>• Analysis (valid conclusions that effectively summarise issues and arguments) is evident throughout;</li> <li>• Answer demonstrates an excellent understanding of the material.</li> </ul> </div> <div style="border: 1px solid black; padding: 5px;"> <p><b>Level 3 (6–7 marks)</b></p> <ul style="list-style-type: none"> <li>• Evaluation is good;</li> <li>• Answer demonstrates some planning and is well organised;</li> <li>• Analysis is often evident but may not be consistently applied;</li> <li>• Answer demonstrates a good understanding of the material.</li> </ul> </div> <div style="border: 1px solid black; padding: 5px;"> <p><b>Level 2 (4–5 marks)</b></p> <ul style="list-style-type: none"> <li>• Evaluation is mostly appropriate but limited;</li> <li>• Answer demonstrates limited organisation or lacks clarity;</li> <li>• Analysis is limited;</li> <li>• Answer lacks consistent levels of detail and demonstrates a limited understanding of the material.</li> </ul> </div> <div style="border: 1px solid black; padding: 5px;"> <p><b>Level 1 (1–3 marks)</b></p> <ul style="list-style-type: none"> <li>• Evaluation is basic;</li> <li>• Answer demonstrates little organisation;</li> <li>• There is little or no evidence of analysis;</li> <li>• Answer does not demonstrate understanding of the material.</li> </ul> </div> <div style="border: 1px solid black; padding: 5px;"> <p><b>Level 0 (0 marks)</b><br/>No response worthy of credit.</p> </div> | 10    |