Cambridge Assessment International Education

Cambridge International AS & A Level

PSYCHOLOGY **9990/12**

Paper 1 Approaches, issues and debates **May/June 2023**

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 2023 series for most Cambridge IGCSE, Cambridge International A and AS Level and Cambridge Pre-U components, and some Cambridge O Level components.

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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.

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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.

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Question	Answer	Marks
1(a)	**From the study by Schachter and Singer (two factors in emotion):** **Identify which <u>one</u> of the following groups self-rated the highest score for palpitations in the Euphoria condition.** **Epinephrine Ignorant (Epi Ign)** **Epinephrine Informed (Epi Inf)** **Epinephrine Misinformed (Epi Mis)** **Placebo** 1 mark for the correct answer. Epinephrine Ignorant (Epi Ign)	**1**
1(b)	**In the Anger condition, an observer recorded the participant's response to the stooge using several categories.** **Outline how the category of 'Watches' was operationalised in this study.** 1 mark per correct point. The participant makes no verbal response / did not agree or disagree with the stooge; To/with the stooge comments; But just directly watches/observes <u>the stooge</u>;	**2**

Question	Answer	Marks
2(a)	**From the study by Baron-Cohen et al. (eyes test).** **Name the <u>two</u> tests used in this study, other than the eyes test.** 1 mark per correct test named. Autism Spectrum Quotient / AQ; Intelligence Quotient / IQ / WASIR;	**2**
2(b)	**For <u>one</u> of the tests you named in (a):** **Identify <u>one</u> strength of this test.** 1 mark for correct strength identified. e.g. Quantitative data so easy to compare / comparable/objective; Published so can replicate; IQ is a standardised/psychometric test so valid/reliable; There are other creditworthy strengths.	**1**

Question	Answer	Marks
3(a)	**In the study by Canli et al. (brain scans and emotions), participants viewed scenes.** **Outline how the participants' emotional arousal towards the scenes was measured.** 1 mark per correct point. (The scale was) 0 = <u>not</u> emotionally intense at all; To 3 = <u>extremely</u> emotionally intense; There were four choices / four-point scale (per image); It was a scale of buttons that they had to press;	**3**
3(b)	**Explain <u>one</u> weakness of how the participants' emotional arousal towards the scenes was measured.** 1 mark for identifying the weakness. 1 mark for linking it to the study. e.g. It was a forced choice (scale) being used (1 mark: identification) so the (four) responses may not exactly represent how the participant actually felt towards the scene (1 mark: link). It is a subjective measurement (1 mark: identification) so participants will have different ideas on emotions / what a '3' means on the scale (1 mark: link). It may lack validity due to small range (1 mark: identification). The sample is difficult to generalise from as they were all female (0 marks: not about the measurement). There are other creditworthy weaknesses.	**2**

Question	Answer	Marks
4(a)	**From the study by Bandura et al. (aggression):** **Describe how the participants were allocated into the experimental groups.** 1 mark per correct point. Observed/rated by a teacher/experimenter (on aggression); Each participant had a composite score on aggression / from four scales; Participants were arranged in triplets/threes; Who had similar/same aggression scores / were matched on aggression; Randomly / equal chance of being in one of the experimental groups;	**4**

Question	Answer	Marks
4(b)	**One conclusion was that imitation of aggression in children is influenced by the sex of the model.** **Outline <u>one</u> other conclusion from this study.** 2 marks full conclusion. 1 mark brief/partial conclusion. e.g. Witnessing an aggressive act is enough to produce aggression in the person who observed it (2 marks); Boys are more likely to imitate aggression compared to girls (2 marks); Children can observe an adult and then imitate behaviour in the absence of that adult (2 marks); People will imitate aggression (1 mark); Girls are more likely to imitate verbal aggression (1 mark);	**2**

Question	Answer	Marks
5	**In Experiment 2 of the study by Laney et al. (false memory), participants completed both the 'Memory or Belief?' questionnaire and the Food Preferences Questionnaire.** **Describe <u>one</u> result from the 'Memory or Belief?' questionnaire and <u>one</u> result from the Food Preferences Questionnaire.** **You <u>must</u> use data for <u>one</u> of these results.** For result: 2 marks for result with a meaningful comparison. 1 mark for partial result / no meaningful comparison. For data: 1 mark for correct data in *one* of the results. e.g. Memory or Belief? Questionnaire There were more participants in the *Love* group who reported a 'memory' compared to the *Control* group (2 marks). For the *Love* group this was 28% of participants. (1 mark: data). There were more participants in the *Love* group who reported a 'memory' (1 mark). e.g. Food Preferences Questionnaire Believers reported more desire to eat asparagus at Session 2 / follow up compared to controls (2 marks). The mean rating for the Believers group rose by 1 point (1 mark: data). Believers reported more desire to eat asparagus at Session 2 / follow up (1 mark).	**5**

Question	Answer	Marks
6	**Outline <u>two</u> assumptions of the social approach.** **You <u>must</u> use an example from a core study for each assumption.** For assumptions: 2 mark for full assumption 1 mark for partial assumption. For example: 1 mark per correct example per assumption. Examples have to come from a core study and be linked to the assumption given. e.g., assumptions Behaviour/cognitions/emotions can be influenced by other individuals (2 marks) (must have two of the three elements mentioned at the beginning). Behaviour/cognitions/emotions can be influenced by groups (2 marks) (must have two of the three elements mentioned at the beginning). Behaviour can be influenced by other people (1 mark). Behaviour can be influenced by social <u>context</u> (1 mark). e.g., examples In the Milgram study the experimenter in the lab coat used prods to get them to continue to give electric shocks (1 mark); In the Piliavin study, some people only helped after a model had intervened (1 mark); In the Yamamoto study, the chimpanzee could give a tool as requested by another chimpanzee (1 mark).	**6**

Question	Answer	Marks
7	**Suggest <u>two</u> real-world applications based on the study by Dement and Kleitman (sleep and dreams).** **Your suggestions <u>must</u> be ethical.** 1 mark for *what* the application is (clearly based on Dement and Kleitman). 1 mark for *how* it will be achieved. e.g. It can help people with sleep related disorders (1 mark: what). Patients can be attached to an EEG monitor to see if brain waves whilst sleeping are typical or not (1 mark: how). It can be used in therapy involving dream analysis (1 mark: what). Patients can be woken up in REM sleep (via a device that detects REM sleep) and asked to recall the content of their dream immediately (1 mark: how). It can be used to promote better quality sleep (1 mark: what). People can use their watch / sleep app to measure/track sleep/REM time to see if sleep is good or needs 'improving' (1 mark: how). It can be used by a mattress company to see if their mattresses promote good quality sleep (1 mark: what). There are other creditworthy suggestions.	**4**

Question	Answer	Marks
8	**Two friends, Haji and Dottie, are discussing the ethics of the study by Yamamoto et al. (chimpanzee helping). Haji thinks the study is ethical but Dottie thinks the study is <u>not</u> ethical.** **Explain <u>one</u> reason why Haji is correct and <u>one</u> reason why Dottie is correct, using evidence from this study.** 3 marks for Haji. 1 mark per correct point made. 1 mark available for naming guideline. 3 marks for Dottie. 1 mark per correct point made. 1 mark available for naming guideline. **e.g., Haji** The smallest number of animals should be used in research (1 mark: naming guideline) in order to meet the aims and goals of the study (1 mark). Yamamoto only used five chimpanzees / five kin pairs of chimpanzees in the study (1 mark). The chimpanzees did not experience any deprivation (1 mark: reason) as they had access to food and water all of the time (1 mark). **e.g., Dottie** Behaviours cannot be controlled by the use of rewards **only** (1 mark: naming guideline). In this case it could be argued that one chimpanzee did get a reward at the expense of the other (1 mark) which meant that the chimpanzee who did not receive a reward was stressed (1 mark). The chimpanzees may have felt some distress (1 mark: reason) if they could not figure out which tool was the best choice (1 mark).	**6**

Question	Answer	Marks
9(a)	**From the study by Saavedra and Silverman (button phobia):** **Outline what is meant by a phobia.** 1 mark per correct point. e.g. It is a (an irrational) fear; Of an object or situation; We feel anxious in the presence of the (phobic) stimulus;	**2**
9(b)	**Outline what is meant by evaluative learning.** 1 mark per correct point e.g. It is a form of Classical Conditioning; An individual perceives/evaluates a previously neutral event/object negatively; As a result of complex cognitive/thought processes; Which is more likely to elicit disgust rather than fear of an object/event;	**2**

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>9(c)</td><td>

Explain <u>one</u> similarity and <u>one</u> difference between the study by Saavedra and Silverman (button phobia) and the study by Pepperberg (parrot learning).

4 marks available for the similarity.
4 marks available for the difference.

Creditworthy points include: sample/sampling, ethics, quantitative data, species used, type of conditioning.

<table>
<tr><th>Level</th><th>Descriptor</th><th>Mark</th></tr>
<tr><td>4</td><td>The similarity/difference is well explained using both studies as examples.</td><td>4 marks</td></tr>
<tr><td>3</td><td>The similarity/difference is well explained/ described but only one study is used as an example OR
both studies used briefly.</td><td>3 marks</td></tr>
<tr><td>2</td><td>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>2 marks</td></tr>
<tr><td>1</td><td>The similarity/difference is brief with no attempt at using studies as examples.</td><td>1 mark</td></tr>
<tr><td>0</td><td>No creditworthy material.</td><td>0 marks</td></tr>
</table>

e.g. similarity
4 marks
Both of the studies used the case study method. Saavedra and Silverman used a boy who had been diagnosed with a button phobia. Pepperberg used a parrot who was being tested on the concepts of same/different. This means that both studies could collect rich/in depth data about the participant.

3 marks
Both of the studies used the case study method. Saavedra and Silverman used a boy who had been diagnosed with a button phobia. Pepperberg used a parrot who was being tested on the concepts of same/different.

2 marks
Saavedra and Silverman used just one boy with a phobia and Pepperberg used just one parrot.

1 mark
They both used the case study method.

</td><td>8</td></tr>
</table>

Question	Answer	Marks
10	**Evaluate the study by Andrade (doodling) 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 an independent measures design.** Suitable strengths include: internal validity, reliability, independent measures, generalisations. Suitable weaknesses include: external validity, ethics, independent measures. **Level 4 (8–10 marks)** • 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. **Level 3 (6–7 marks)** • 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. **Level 2 (4–5 marks)** • 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. **Level 1 (1–3 marks)** • Evaluation is basic. • Answer demonstrates little organisation. • There is little or no evidence of analysis. • Answer does not demonstrate understanding of the material. **Level 0 (0 marks)** No response worthy of credit.	**10**