Cambridge Assessment International Education

Cambridge International AS & A Level

PSYCHOLOGY **9990/11**

Paper 1 Approaches, Issues and Debates **October/November 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 October/November 2023 series for most Cambridge IGCSE, Cambridge International A and AS Level 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.

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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	Guidance
1(a)	**In the study by Andrade (doodling), the participants were given a surprise recall test for two categories of information that was presented in the telephone message. One of these categories was the names of the party-goers.** **Name the other category of information that the participants were asked to recall from the telephone message.** 1 mark for correct point. Take the first answer only. Places.	**1**	Accept location/city names.
1(b)	**For the names of party-goers, 'false alarms' given by the participants were noted.** **Outline the <u>two</u> types of false alarms given by the participants when recalling the names of the party-goers.** 1 mark per correct point. New names/names not in the message. Names used as lures in the message / non-party goers.	**2**	List is definitive. Plausible mis-hearings were counted as correct so no credit. Accept 'lures' by itself. Accept 'wrong names' as meaning 'new names'.

Question	Answer	Marks	Guidance
2(a)	**From the study by Piliavin et al. (subway Samaritans):** **Outline what the model was supposed to do in the 'Critical area – early' condition.** 1 mark for each correct point. Model stood in middle of (critical) car. Waited until passing the fourth station / waited for approximately 70 s. Then began to help the victim.	**2**	List is definitive. If the time given is incorrect (but less than 70s) and they state 'could then go help the victim', award BOD 1

Question	Answer	Marks	Guidance
2(b)	**Describe the victim in the drunk condition.** At least 1 mark must come from below: Smelled of liquor. Carried a liquor bottle wrapped in a brown bag / brown paper. 1 mark per correct point (maximum 1): Wore Eisenhower jacket / old slacks / no tie. Aged 26–35 years. Male. Black or white.	**2**	Accept any age from within the range. List is definitive.
3	**Explain one problem that could arise if children were used as participants in the study by Baron-Cohen et al. (eyes test).** 1 mark for identification of the problem. 1 mark for elaboration of the problem (can be linked to study or not) 1 mark for linking it to Baron-Cohen et al. e.g., There are ethical issues with using children (1 mark: identification). This could be protection from psychological harm (1 mark: elaboration). In this study, children may have found the procedure stressful as it could have felt like a test or examination (1 mark: link). Children may not understand what is being asked of them (1 mark: identification). Therefore, the children may not understand how the eyes test works (1 mark: elaboration). As a result, the children may have seen it as a game and therefore theory of mind might not have been measured (1 mark: link). There are other creditworthy problems, such as, getting easily bored, randomly choosing, not understanding words/emotions.	**3**	Go with the intention of the candidate. If more than one problem presented, mark all and credit the best. Cannot be awarded 1 mark for simply stating it reduces/affects validity. Do not accept any argument about not being generalisable.

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Question	Answer	Marks	Guidance
4(a)	**Saavedra and Silverman studied a boy with a phobia of buttons. One aim was to investigate whether exposure to buttons would help to treat his phobia.** **Outline <u>one</u> other aim of this study.** 2 marks full aim. 1 mark partial/brief aim e.g. To investigate what caused / reason for having the phobia of buttons in a boy (2 marks). To investigate the role of classical conditioning in the (button) phobia of a boy (2 marks). To investigate the role of fear and disgust in relation to his/a phobia (2 marks). To investigate evaluative learning (1 mark).	**2**	If candidate refers to a different method to treat the phobia then BOD 1. (e.g., positive reinforcement). Mention of imagery exposure or behavioural exposure = 0
4(b)	**Outline how the boy's severity rating for buttons changed during behavioural exposure sessions.** 1 mark per correct point. The severity rating remained the same for the first two sessions. The ratings increased from session 2 to session 3. The ratings increased from session 3 to session 4.	**2**	The list is definitive. Reject reference to it reducing or the 8 to 5 to 3 rating as this is for imagery exposure and not behavioural exposure. Can award 1 mark if all they say is 'it increased'.
4(c)	**State <u>two</u> results from the post-treatment assessment session**. 1 mark per correct point. The boy reported minimal distress / less distress / decreased anxiety. He no longer met the (DSM) criteria for a specific phobia. He was now wearing (clear plastic) buttons (on his school uniform). He was doing this every day / on a daily basis.	**2**	The list is definitive. Accept 'his phobia had gone'. Ignore comments about being able to hug his mother.

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Question	Answer	Marks	Guidance
5(a)	**In the study by Bandura et al. (aggression), the final part of the procedure was named the 'test for delayed imitation'.** **Describe the procedure used to 'test for delayed imitation'.** 1 mark per correct point. There were a variety of toys in the (experimental) room. The child spent 20 minutes in the (experimental) room. Behaviour was observed through a one-way mirror. Behaviour was rated on predetermined response categories. e.g., imitation of physical aggression, imitative verbal aggression, imitative nonaggressive responses (2 named for 1 mark). The session was divided into 5 second intervals. Using an electric interval timer. A total of 240 response units were recorded per participant. The male model completed all observations. Half were then rated by a second observer (for inter-rater reliability).	**4**	List is definitive. Ignore any reference to aggression arousal as this is a different part of the study.
5(b)	**Outline <u>one</u> conclusion from this study.** 2 marks detailed conclusion. 1 mark partial/brief. 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 who see aggressive models are more likely to imitate aggression that those seeing a non-aggressive model / no model (2 marks) Girls are more likely to imitate verbal aggression (1 mark). People will imitate aggression (1 mark). Boys are more likely to imitate same-sex models (1 mark).	**2**	Ignore any results presented.

Question	Answer	Marks	Guidance
6(a)	**From the study by Dement and Kleitman (sleep and dreams):** **Describe the psychology being investigated in this study.** 1 mark per 'psychology' point made. 1 mark available for an explicit example from the study. Creditworthy 'psychology' includes sleep patterns, dreaming, REM, nREM, EEGs e.g., Rapid Eye Movement / REM sleep is a phase of sleep where a person is paralysed. Their eyes flicker and they can breathe but all other muscles are paralysed. Non-Rapid Eye Movement / nREM sleep are the other (four) stages of sleep and they differ in brain activity. Dreaming is a subjective experience of imagery whilst we are asleep. Electroencephalograms (EEGs) measure brain wave activity. They are used to measure the amplitude and frequency of brain waves.	**4**	use tick-e when you award the 'example mark'
6(b)	**Explain why this study is from the biological approach.** 1 mark per point made that explains why it is biological. e.g., Dement was using an EEG / measured brain activity (1 mark) to investigate how it is connected to stages of sleep / REM and nREM (1 mark). Dement was using an EOG / measured eye movements (1 mark) to investigate how it is connected to dream content (1 mark).	**2**	An assumption of the biological approach can be awarded 1 mark max. 1 mark max for basic statement, e.g., they were studying the brain or sleep is a natural process etc.

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Question	Answer	Marks	Guidance
7	**Suggest <u>two</u> real-world applications based on the study by Canli et al. (brain scans and emotions). Your suggestions <u>must</u> be ethical.** 1 mark for what the application is (clearly based on Canli et al.) 1 mark for how it will be achieved. e.g. People in advertising may want to use emotionally intense imagery (1 mark: what). The images in this study that were rated emotionally intense were remembered better so products linked to this type of imagery may also be well remembered (1 mark: how) Psychologists may want to use the same procedure with people <u>who have memory difficulties</u> (1 mark: what). If a patient does not remember emotionally intense imagery then they may have a problem with / may have a damaged amygdala (1 mark: how). This can be used with students to help learning (1 mark: what). Highly arousing images can be used to help them remember (1 mark: how).	**4**	Annotate with a tick for what the application is and a + for how it will be achieved. The 'what' can be anything emotionally intense (positive imagery).

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Question	Answer	Marks	Guidance
8	**Two friends, Rose and Yaroslav, are discussing the validity of the study by Milgram (obedience). Rose thinks the study has validity but Yaroslav thinks the study does not have validity.** **Explain <u>one</u> reason why Rose is correct and <u>one</u> reason why Yaroslav is correct, using evidence from this study.** 1 mark per correct point. 3 marks for Rose. 1 mark available for identifying a relevant type of validity. 3 marks for Yaroslav. 1 mark available for identifying a relevant type of validity. e.g., Rose The study did have a degree of mundane realism (1 mark). All participants received 45 v sample shock before the study began (1 mark) meaning that the participants were more likely to believe that the shocks they were giving were real (1 mark). The study did have some internal validity (1 mark). Milgram ensured that there were some controls present in the study like the pre-set responses from the learner (1 mark). This ensured that Milgram could conclude that the responses were causing the stressful reactions seen in the participants (1 mark). e.g., Yaroslav The study lacked ecological validity (1 mark). This is because the set-up of shocking a stranger during a memory test is not a real situation (1 mark) so the responses may only be what people would do in this unreal situation / might not be what people would do in a real-life destructive obedience situation (1 mark).	**6**	Only credit identification of type **once** if repeated for Rose and Yaroslav, for example, mundane realism. For Rose: Standardisation = 0. Any mention of IV/DV = max 1. Quantitative data = max 1. Control of extraneous variables + an example = max 2. Demand characteristics = max 2. For Yaroslav: If argument is population validity but they use the term generalisability then max 1.

Question	Answer	Marks	Guidance
9(a)	**Describe the sample used in the study by Pepperberg (parrot learning).** 1 mark per correct point. Sample of 1. African grey (parrot). Already been in studies on communication / cognitive abilities. Already produce vocal labels for colour/shape/material. Knew some of the objects already. Already shown limited comprehension of abstract concepts. Already has the ability to communicate needs (e.g., 'wanna go gym').	**4**	List is definitive. Do **not** credit opportunity sample.

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th><th>Guidance</th></tr>
<tr><td>9(b)</td><td>
Explain whether each ethical guideline below, relating to animals, was broken in the study by Pepperberg (parrot learning):

housing
pain and distress
reward
species and strain

For each guideline, use the following banded mark scheme:
<table>
<tr><th>Level</th><th>Descriptor</th><th>Marks</th></tr>
<tr><td>2</td><td>The answer explicitly describes the ethical guideline and the example is contextualised from the named study</td><td>2</td></tr>
<tr><td>1</td><td>The answer explicitly describes the ethical guideline without correct contextualisation / no contextualisation
OR The ethical guideline is identified from the use of a brief example contextualised from the named study
OR The ethical guideline is incorrectly described but the contextualised example from the named study is correct</td><td>1</td></tr>
<tr><td>0</td><td>The description of the ethical guideline is incorrect and/or the contextualised example is incorrect
OR no answer given</td><td>0</td></tr>
</table>
e.g., housing
Housing should consider the social behaviour of species (e.g., caging).
Alex was housed alone which might be stressful as parrots are social (broken).

e.g., pain and distress
Researchers should always attempt to minimise pain and distress that might arise in a study.
Alex was not subjected to any painful procedures if he got an answer wrong (it was a verbal punishment) (not broken).
When Alex did get an answer wrong he was scolded verbally which could have caused distress (broken).
</td><td>8</td><td>
Do not credit tautological answers:

e.g., housing is about housing animals etc.

Go with the intentions of the candidate.

Mark each guideline independently and annotate with SEEN, L1 or L2.

Credit provided with food and water as example. Ignore comments about not being in the wild

Credit example about being punished for incorrect response.

For species and strain accept arguments about Alex not being endangered. Also, do credit tested many times / over many days so this could have strained him.
</td></tr>
</table>

Question	Answer	Marks	Guidance
9(b)	e.g., reward Rewards should be tailored to the animal and based on preferred food choices / object choice. Alex was rewarded with the objects if he got a question correct / he could self-reward by asking for food and it would be given (not broken). e.g., species and strain Researchers should choose an **appropriate** species for their study / least likely to suffer. Alex had been used for over 10 years in different studies about cognitive abilities so was an ideal participant (not broken) / he was a solitary parrot and they are social so he may have suffered (broken).		

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<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th><th>Guidance</th></tr>
<tr><td>10</td><td>
Evaluate the study by Laney et al. (false memory) in terms of <u>two</u> strengths and <u>two</u> weaknesses. At least one of your evaluation points <u>must</u> be about ethics.

Suitable strengths include internal validity, reliability, quantitative data.
Suitable weaknesses include ethics, external validity, generalisability.

<table>
<tr><th></th><th>Additional guidance</th></tr>
<tr><td>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.</td><td>10 marks is reserved for: The candidate has given four evaluation points (two strengths and two weakness) that are in depth, in the context of the study, and include the named evaluation point.

Max 8 if: The candidate has given three evaluation points (at least one strength and one weakness) and they are in the context of the Laney et al. study and it includes the named evaluation point, in depth.</td></tr>
<tr><td>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.</td><td>Max 6: if the answer does not include the named evaluation point.

Max 6: if The candidate has given one strength and one weakness and they are in the context of the Laney et al. study and in-depth.</td></tr>
</table>
</td><td>10</td><td>Use tick-d for detailed (so the candidate clearly explains why it is a strength or a weakness).

Use tick-b for brief (tends to not explain why).

Rules (points in context)
If all tick-b then Level 2 max
If mixture of tick-b and tick-d then likely Level 3
If three tick-d and one tick-b then Level 4 8 marks max
All have to be tick-d and in context to gain Level 4

If no points are in context then Level 1 max, unless well explained then Level 2</td></tr>
</table>

Question	Answer		Marks	Guidance
10	**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.	Max 5: The candidate has given either two strengths or two weaknesses (contextualised). Max 4: if The candidate has given one strength or weakness that is in the context of the Laney et al. study which is in-depth		
	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.	Max 3: The candidate has given two evaluation points that are generic/brief. Max 2: The candidate has given one evaluation point that is generic/brief.		
	Level 0 (0 marks) No response worthy of credit.	If the answer is a description of the study		

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