CAMBRIDGE
International Education

Cambridge International AS & A Level

PSYCHOLOGY **9990/11**

Paper 1 Approaches, Issues and Debates **October/November 2024**

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 2024 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 descriptions 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).

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3 Calculation questions:

- The mark scheme will show the steps in the most likely correct method(s), the mark for each step, the correct answer(s) and the mark for each answer
- If working/explanation is considered essential for full credit, this will be indicated in the question paper and in the mark scheme. In all other instances, the correct answer to a calculation should be given full credit, even if no supporting working is shown.
- Where the candidate uses a valid method which is not covered by the mark scheme, award equivalent marks for reaching equivalent stages.
- Where an answer makes use of a candidate's own incorrect figure from previous working, the 'own figure rule' applies: full marks will be given if a correct and complete method is used. Further guidance will be included in the mark scheme where necessary and any exceptions to this general principle will be noted.

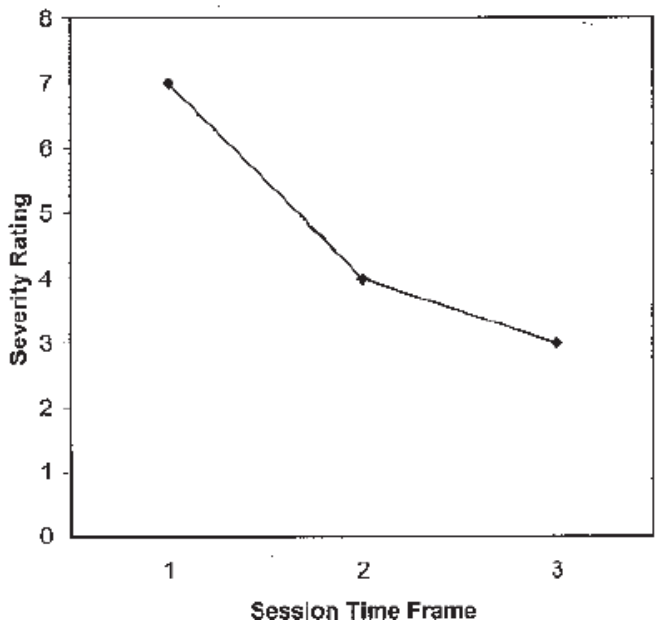
4 Annotation:

- 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 Hassett et al. (monkey toy preferences): A sample of monkeys from a troop of 135 was used. State the total number of monkeys used as the final sample.** 1 mark for correct answer 34	**1**	Take the first answer only. Accept when given as number of males (11) and females (23).
1(b)	**Identify two toys that were categorised as 'wheeled' in this study.** 1 mark per correct answer Wagon Truck Car Construction vehicle Shopping cart Dump truck/bin wagon	**2**	List is definitive. 'Vehicle' = 0
1(c)	**Outline one conclusion from this study.** 2 marks for full conclusion 1 mark for brief/partial conclusion e.g., Toy preference (in monkeys) reflect hormonally influenced behavioural/cognitive biases which are affected by social pressures/processes (2 marks). Toy preference in monkeys is influenced by hormones and social pressures (1 mark). Male monkeys preferred wheeled toys the most (0 marks = result). There are other creditworthy responses	**2**	Do not credit results. There are four things here: Hormones/biology Behavioural (bias)/preference Cognitive (bias)/thoughts Social processes/socialisation Three or more = full Two or less = partial Do **not** credit responses based on gender.

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Question	Answer	Marks	Guidance
2(a)	**From the study by Saavedra and Silverman (button phobia):** **Outline the change in ratings of distress when the boy had to imagine hugging his mother with her shirt full of buttons.** 1 mark per correct point e.g., The (severity) rating began at 7 then decreased to 4 and at the end of the final session was a 3 (2 marks) The ratings decreased from Session 1/before imagery exposure to Session 2/midway through imagery exposure The ratings further decreased from Session 2/midway through imagery exposure to Session 3/after imagery exposure The ratings decreased from Session 1/before imagery exposure to Session 3/after imagery exposure The largest decrease was from Session 1/before imagery exposure to Session 2/midway through imagery exposure There are other correct responses	**2**	2). Figure 3 shows how his rating decreased from 7 (immediately before the exposure) to 4 (midway through the exposure) to 3 (immediately after the exposure) (Fig. 3).  If data presented with at least two correct data points = 2 marks One correct data point or all numbers incorrect but show decrease = 1 mark

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Question	Answer	Marks	Guidance
2(b)	**Explain <u>one</u> weakness of this study.** 1 mark for the identification of weakness 1 mark for explaining the weakness via example from the study e.g. (Lacks) generalisability (1 mark: identification) as it was a case study on one child with a phobia of buttons and he may be unique (1 mark: explained in context) (Potentially) unethical (1 mark: identification) as increased levels of distress were recorded in some scenarios with buttons (1 mark: explained in context) Difficult to control (participant) variables (1 mark) There are other creditworthy responses.	**2**	Do accept 'it was a rare phobia'.

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Question	Answer	Marks	Guidance
3(a)	**From the study by Pozzulo et al (line-ups):** **Outline <u>one</u> aim of the study.** 2 marks for full aim 1 mark for partial/brief aim e.g., To investigate the role of social and cognitive factors in false positive responding of children in line-ups (2 marks) To investigate whether the pattern in correct identification and positive responding would remain when familiarity of a target is manipulated (2 marks) To investigate the role of cognition in identification of faces (1 mark) To investigate whether children are good eyewitnesses (1 mark) There are other creditworthy responses.	**2**	Responses about testing false negative/positive responses = 0 as this is how the <u>aim was tested</u>; it is **not** the aim of this study. The false responses are the <u>predictions</u> based on the aim.

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Question	Answer	Marks	Guidance
3(b)	**Explain why this study is from the cognitive approach in psychology.** 2 marks = clearly linked to cognitive approach (either through example or assumption) 1 mark = partially linked to cognitive approach/assumption of the cognitive approach only e.g. Children correctly identified 99% of the cartoon faces (1 mark example). This could follow the principles of input (see cartoon), process (memory of cartoon) and output (remember cartoon) (1 mark assumption link) Adults correctly identified 66% of human faces (1 mark example). This shows that people do have individual differences in memory recall (1 mark assumption link). There are other creditworthy responses.	**2**	Ignore *only* descriptions of the study with no attempt at the *why* bit of the question.

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Question	Answer	Marks	Guidance
4(a)	**In the study by Milgram (obedience), there was a 'learning task'. Milgram called this a 'paired-associate learning task'.** **Describe this 'learning task' as used in this study.** 1 mark per correct point The P read out a series of word pairs (to the learner). The P then read out one word. Along with four terms. The learner then had to indicate which word had been originally paired/responded with the corresponding word. This was done by him pressing one of four switches. This lit up one of four quadrants in the answer box.	**5**	List is definitive. The answer has to be about the learner and not the teacher. The learning task is **different** to the shock instructions so ignore reference to the latter. Award 1 mark max for: Each incorrect answer received a shock/correct answer moved to next word.

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Question	Answer	Marks	Guidance
5(a)	**Outline <u>two</u> assumptions of the biological approach in psychology.** 2 marks for full assumption 1 mark for partial/brief assumption e.g., 2 marks Behaviour, cognitions and emotions can be explained in terms of the working of the brain and the effect of hormones, genetics and evolution (any two of these needed) Similarities and differences between people can be understood in terms of biological factors and their interaction with other factors e.g., 1 mark Behaviour, cognitions and emotions can be explained in terms of the working of the brain Similarities and differences between people can be understood in terms of biological factors There are other creditworthy responses.	**4**	

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Question	Answer	Marks	Guidance
5(b)	**Explain how <u>one</u> finding from the study by Hölzel et al. (mindfulness and brain scans) supports <u>one</u> of the assumptions you outlined in <u>part (a)</u>.** 1 mark for result/conclusion. 1 mark for linking it to an assumption explicitly (not by name only: a relevant concept needs to be mentioned) e.g. There was a significant increase in grey matter in the Mindfulness-Based Stress Reduction group (1 mark result). This shows that there were similarities between the MBSR group in terms of how the program interacted with their brain density (1 mark supported link). There are other creditworthy responses.	**2**	If the link is not with an assumption from 5a, can only be awarded the result/conclusion mark.

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Question	Answer	Marks	Guidance
6(a)	**In the study by Perry et al (personal space), the participants had to complete two conditions, one week apart. One was the oxytocin condition.** **Describe how the participants received the 'oxytocin'.** 1 mark per correct point The participant had to self-administer the oxytocin 24 international units (in 250ml). This was done in the presence of the experimenter It was administered intranasally/via the nose From a medicine dropper Three drops per nostril.	**3**	List is definitive.
6(b)	**Identify what was received by the participants in the other condition, instead of oxytocin.** 1 mark for correct answer Saline.	**1**	Take the first answer only. Accept 'placebo' as Q is identify. Do **not** accept placebo pill or placebo injection.

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Question	Answer	Marks	Guidance
6(c)	**Explain <u>one</u> strength of this study.** 1 mark for the identification of strength 1 mark for explain the strength via example from the study e.g. There were controls in place to try to ensure it was the IV (directly) affecting the DV (1 mark: identification). For example, <u>all</u> participants waited 45 mins to ensure OT levels had plateaued making sure it was the empathy/oxytocin affecting personal space (1 mark explained in context) There was a clear standardised procedure which improves reliability/study can be replicated to check results etc. (1 mark: identification). For example, in Experiment 1 the figure approached for 3s in which the participant had to press the spacebar to stop it getting any closer (1 mark explained in context). The double-blind technique could reduce demand characteristics (1 mark: identification) as the participant did not know if they had been given oxytocin/placebo (1 mark explained in context). There are other creditworthy responses.	**2**	Strengths can be methodological, practical or ethical.

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Question	Answer	Marks	Guidance
7	**Gabriela has a job where she needs to listen to recorded telephone conversations to check for the quality of customer service. However, she finds it difficult to pay attention to the recordings. She wants advice on how to improve her attention.** **Outline what advice you would give to Gabriela, using your knowledge of the study by Andrade (doodling).** 1 mark per piece of advice clearly based on the study by Andrade. e.g. Tell Gabriela to get a piece of paper. Tell her that whilst listening to/during the conversations she can doodle. Gabriela could go and sit in a dull/boring room. Tell her she can doodle whenever she wants/about whatever she wants. Or tell Gabriela that the paper can already have shapes on it so she can colour them in. Ask Gabriela to focus on specific pieces of information that are important. Tell her she could review her concentration levels afterwards with a colleague checking the recollection of the conversation(s). Gabriela could write down information/take notes about the conversation. There are other creditworthy responses.	**4**	No mark for simply saying ‘doodle’ Has to be advice based on the Andrade study, so *any* secondary task is fine to gain credit. Do **not** credit ‘use a pencil/pen’.

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Question	Answer	Marks	Guidance
8	**Adamu is talking about the study by Baron-Cohen et al. (eyes test). He says that the findings are <u>not</u> generalisable.** **Explain why Adamu is correct that the findings are <u>not</u> generalisable, using evidence from the study in your answer.** Up to 1 mark available for defining generalisability/not generalisable. Up to 4 marks available per correct point made based on evidence. e.g., Generalisability is about whether the findings can extend beyond the sample to the target population (1 mark: definition). Group 1 were all males, so this makes it difficult to generalise to females (with AS/HFA). The AS group was volunteers so may be different to non-volunteer AS people. Group 2 was only made up of people from education classes/library users which is a specific part of the population. Group 3 were only from a prestigious university (Cambridge) so may not represent other undergraduates. The majority of Group 3 were science students so these may be different to humanities students. There are other creditworthy responses.	**4**	Ignore responses about it <u>having</u> generalisability. Max 1 mark can be awarded for 'cannot generalise to everyday life' with an example from the study.

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Question	Answer	Marks	Guidance
9(a)	**From the study by Dement and Kleitman (sleep and dreams):** **Outline <u>two</u> dreams reported by participants that had vertical eye movements.** For each dream: 2 marks for detailed answer 1 mark for brief answer One P reported a dream of standing at the bottom of a cliff operating a hoist/looking at climbers on the cliff (2 marks). One P reported a dream of standing at the bottom of a cliff (1 mark). One P reported climbing up a ladder and looking up/down as he climbed (2 marks); One P reported climbing up a ladder (1 mark). One P reported playing basketball and looking up at the hoop as they shot/looking down to pick it up (2 marks). One P reported playing basketball (1 mark).	**4**	Dream list is definitive.

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Question	Answer	Marks	Guidance
9(b)	**Explain <u>two</u> differences between the study by Dement and Kleitman and the study by Hölzel et al. (mindfulness and brain scans). One of the differences <u>must</u> be about the technique used to investigate the brain.** Use the marking grid below. 4 marks for the difference (twice), e.g., brain measurement, research techniques used, type of data collected (quantitative/qualitative), generalisability, sample size. e.g. difference 4 marks Hölzel used an MRI scan to be able to see brain density changes after a mindfulness stress reduction course. Dement & Kleitman used a different technique called an EEG that could only monitor brain wave activity/patterns. Therefore, Hölzel's method looked at structure whereas Dement looked at (real-time) function (explanation). 3 marks Hölzel used an MRI scan to be able to see brain density/grey matter changes after a mindfulness stress reduction course. Dement & Kleitman used a different technique called an EEG that could only monitor brain wave activity/patterns (during REM etc.) 2 marks Hölzel used an MRI scan measure brain density whilst Dement & Kleitman used an EEG. 1 mark Hölzel used an MRI scan and/or Dement & Kleitman used an EEG.	**8**	Award L1-L4 for each difference For Level 4 there must be some attempt at *explaining* the difference. If both differences do not focus on technique used to investigate the brain, then <u>mark both but only credit the best.</u> Annotate with a tick to show they have a difference based on the technique. To get L2 for technique, one of the techniques must be mentioned in relation to what was being measured. Correct techniques **must** be mentioned to get L3 or L4. Different aims = L1 Quantitative/qualitative argument = L3 max Do credit experimental designs as D&K utilised repeated measures and Hölzel used independent groups. Extra rules for techniques: For L3 there needs to be specific examples of what was measured from both studies If one of the techniques is incorrect, then L1 max.

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<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th><th>Guidance</th></tr>
<tr><td>9(b)</td><td>
<table>
<tr><th>Mark/ Level</th><th>Description</th></tr>
<tr><td>4</td><td>The difference is well explained using both studies as examples.</td></tr>
<tr><td>3</td><td>The difference is well explained but only one study is used as an example OR
both studies are used briefly.</td></tr>
<tr><td>2</td><td>The difference is brief with an attempt at using at least one study as an example OR
The difference is well explained but there is no study evidence.</td></tr>
<tr><td>1</td><td>The difference is brief with no attempt at using the studies as examples.</td></tr>
<tr><td>0</td><td>No creditable response.</td></tr>
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Question	Answer	Marks	Guidance
10	**Evaluate the study by Bandura et al. (aggression) in terms of <u>two</u> strengths and <u>two</u> weaknesses. At least one of your evaluation points <u>must</u> be about validity.** Strengths include: reliability (standardisation), quantitative data, validity; children showing less demand characteristics Weaknesses include: ecological validity, ethics, generalisability, quantitative data Example: in detail (named issue) One control was the participants being rated on aggression prior to the study, so Bandura could be more confident it was the IV (type of model) affecting the DV (behaviour shown by the children including physical aggression). Example: brief but in context There was a standardised procedure. For example, the aggressive model always followed the same procedure. This increases the reliability of the study. Example: no context There were controls in place so they could establish cause and effect/has internal validity.	**10**	Use level descriptors in table below

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Level descriptors for **Question 10:**

Level	Description	Mark
5	• Very good evaluation including the named issue. • Thoroughly addresses both strengths and both weaknesses in detail. • Selection of evidence is very thorough and effective.	9–10
4	• Good evaluation including the named issue. • Addresses strengths and weaknesses but may include three or four points. The majority of the points are in depth. • Selection of evidence is thorough and effective.	7–8
3	• Mostly appropriate evaluation but may not include the named issue. • Addresses either two strengths or two weaknesses in detail or one of each in detail or all four briefly. • Selection of evidence is mostly effective.	5–6
2	• Weak evaluation and may not include the named issue. • Addresses either a strength or a weakness. Evaluation points are brief. • Some points may have no context. • Selection of evidence is sometimes appropriate.	3–4
1	• Little or no evaluation. • Discussion of strengths and weaknesses is absent or superficial. • Selection of evidence is limited.	1–2
0	No creditable response.	0

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