CAMBRIDGE
International Education

Cambridge International AS & A Level

PSYCHOLOGY **9990/13**

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.

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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 Dement and Kleitman (sleep and dreams), five participants were studied intensively. There were also a number of participants who had minimal data collected from them.** **State the number of participants who had minimal data collected from them.** 1 mark for the correct answer 4	**1**	Take the first answer only.
1(b)	**Before the study began, participants were given two instructions about what they must not do:** • **do not consume alcohol** • **do not consume caffeine** **Participants were also given instructions about what they must do.** **States these two instructions.** 1 mark per correct answer Arrive a little bit before usual bedtime/at their usual bedtime Eat 'normally'	**2**	List is definitive.

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Question	Answer	Marks	Guidance
1(c)	**Outline <u>one</u> conclusion from this study in relation to dreaming**. 2 marks for detailed conclusion 1 mark for partial/brief conclusion e.g. Dreams are not instant events but are reported/experienced in real time (2 marks) Eye movements during sleep do correspond with the content of a dream (2 marks) Dreaming happens more in REM (1 mark) Eye movements match dreams (1 mark) Ps recall more dreams in REM compared to NREM (0 marks: a result) There are other creditworthy responses.	**2**	Ignore answers that are just results. These include things like named correlations, comparisons of behaviour during REM/nREM etc. However, 'correlation' used in an answer about eye movement and content of dream <u>is</u> creditworthy (as this is linguistic).

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Question	Answer	Marks	Guidance
2(a)	**From the study by Hassett et al (monkey toy preferences):** **Outline <u>one</u> result in relation to sex differences in frequency of play with 'plush' toys.** 2 marks for the result with a meaningful comparison 1 mark for result with no meaningful comparison e.g. Female (monkeys) played with plush toys, on average, with a higher frequency compared to males (monkeys). (2 marks) Females played with a higher frequency. (1 mark)	**2**	Do **not** credit duration or preference. Reject '**more** of the females.' Do credit any response based on the standard deviation. If response compares males plush with wheeled then female plush with wheeled = 1 mark. Response **must** be male versus female otherwise 0 marks. Accept 'more' as frequency.
2(b)	**Explain <u>one</u> weakness of this study**. 1 mark for the identification of a weakness 1 mark for explaining the weaknesses via an example from the study e.g. (Lacks) generalisability (1 mark: identification) as the sample was captive (rhesus) monkeys so wild monkeys may respond differently (1 mark: explained in context) (Lacks) mundane realism (1 mark) as choosing (human) toys is not a typical everyday activity for (rhesus) monkeys (1 mark: explained in context). Difficult to control (participant) variables (1 mark) There are other creditworthy responses.	**2**	Do **not** credit ecological validity/unethical as use captive monkeys. Do **not** credit comparisons with children.

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Question	Answer	Marks	Guidance
3(a)	**From the study by Saavedra and Silverman (button phobia):** **Outline how positive reinforcement was used in the treatment of the boy's phobia.** 1 mark per correct point This was provided by the boy's mother It was contingent on him successfully completing a gradual exposure to buttons.	**2**	List is definitive.
3(b)	**Explain one reason why this study supports the nurture side of the nature versus nurture debate.** 1 mark for explaining what is meant by nurture 1 mark for example from the study by Saavedra and Silverman e.g., Nurture is about learning/developing a behaviour after birth/through experiences (1 mark: meaning) In this study the boy had a bad experience in the classroom with a bowl of buttons and this probably caused his phobia (1 mark: example) By gradually making him think about buttons, the level of distress/anxiety decreased meaning it changed through the experience of therapy (1 mark: example) There are other creditworthy responses.	**2**	Ignore tautological responses like nurture is about the being nurtured. Do accept arguments that it is 'not inherited'. 'An experience' by itself cannot get the example mark.

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Question	Answer	Marks	Guidance
4	**From the study by Pozzulo et al. (line-ups):** **Describe the 'line-up presentation' for the target-present condition.** 1 mark per correct point made, up to 4 marks 1 mark for the marking point in **bold** as it is unique to the target-present condition **The target was in the line-up with three other photographs/foils.** All of the pictures were shown simultaneously. The target's line-up position was randomised. Each participant watched four videos. These were presented on a laptop/computer/on a screen. These were in a random order. The photo array/line-up was shown after each video. The position of the target was counterbalanced across photo arrays/line-ups. A silhouette was also included in the line-up.	**5**	The list is definitive. For the annotations use ticks as per usual but **use tick-b for the point in bold** to know that the response can access all available marks. Do **not** credit how the photographs were chosen. Do **not** credit what a participant was expected to do.

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Question	Answer	Marks	Guidance
5(a)	**Outline <u>two</u> assumptions of the learning approach in psychology.** 2 marks for full assumption 1 mark for partial/brief assumption e.g., 2 marks We all begin life as a blank slate. Experiences and interactions with the environment shape our behaviour/these changes are directly observable. We learn through the processes of operant conditioning, classical conditioning and social learning (at least 2 need to be named). (This can be understood using the stimulus-response model). e.g., 1 mark We all begin life as a blank slate. We learn through the processes of operant conditioning/classical conditioning/social learning.	**4**	Do **not** credit environment by itself.
5(b)	**Explain how <u>one</u> finding from the study by Bandura et al. (aggression) supports <u>one</u> of the assumptions you outlined in part (a).** 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 and it does not have to be one mentioned in 5(a)) e.g., Children were more likely to imitate aggressive behaviour if they had seen an aggressive model compared to a non-aggressive model (1 mark: result). Therefore, this supports the idea of Social Learning as they observed and imitated the behaviour(s) (1 mark: link) There are other creditworthy responses.	**2**	If the link is not with an assumption from 5(a), can only be awarded the result/conclusion mark. Ensure SLT is mentioned in 5(a), otherwise only result/conclusion mark is available.

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Question	Answer	Marks	Guidance
6(a)	**From the study by Andrade (doodling):** **Describe the psychology being investigated in this study.** 1 mark per correct point e.g. Looking at whether doodling aids (cognitive) concentration/memory/attention. Arousal levels need to be maintained to be able to concentrate. Cognitive processing of dual tasks compete for the same levels of performance. This may slow down our overall cognitive processing speed. Boredom plays a role in paying attention to information. Information processing when asked to do 'two things at once'/multitasking. Removes attention/takes away concentration/acts as a distraction (a second task). There are other creditworthy responses.	**4**	There are no ID marks available. 1 mark is available for an example from Andrade. Do credit definitions of terms like attention, memory etc.
6(b)	**Explain <u>one</u> strength of this study in relation to reliability.** 1 mark for standardisation <u>and</u> replication (identification of the strength) 1 mark for example from the study e.g. The procedure was standardised so could be replicated (1 mark). For example, the telephone message was the same length/contained the same information for all participants (1 mark link). There are other creditworthy responses.	**2**	Ignore reference to controls.

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Question	Answer	Marks	Guidance
7	**Your friend Ruru has read a story in a newspaper about a nurse who gave incorrect medicine to a patient because a doctor told her. Ruru says that he cannot understand why the nurse would do that.** **Suggest to Ruru why the nurse gave the incorrect medicine, using your knowledge of the study by Milgram (obedience).** 1 mark per piece of evidence clearly based on the study by Milgram The doctor was seen as a person in authority The uniform would have shown that the doctor was in authority In Milgram, the participants did give an electric shock without really questioning The doctor may have had a stern appearance The doctor may have said 'you must give that dose of medication' The doctor may have told the nurse that it was the doctor's responsibility as an authority figure The nurse may have just got a job at the prestigious hospital so did not want to question The consequence of giving the medicine will not be hers, but the doctors There are other creditworthy responses.	**4**	Go with the intention of the candidate. 1 mark available for a relevant finding from Milgram (result or conclusion). 1 mark available for general commentary about why she gave the medicine, e.g., she was simply following orders.

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Question	Answer	Marks	Guidance
8	**Betsy is talking about the study by Hölzel et al (mindfulness and brain scans). She says that the study has validity.** **Explain why Betsy is correct that the study has validity, using evidence from this study in your answer.** Up to 1 mark available for explaining what <u>one</u> type of validity is Up to 4 marks available per correct point made based on evidence e.g., Validity is about whether a measure is truly measuring what it should be (1 mark: explaining)/Internal validity is about whether the IV is directly affecting the DV due to strong controls (1 mark: alternative explaining). The study used MRI scans which are objective measures of brain matter. The study did have some controls like the inclusion criteria for participation meaning that this variable was less likely to affect the DV of grey matter density. As the MBSR program was a conducted in the real-world setting, it can be argued that the study had ecological validity. There are other creditworthy responses.	**4**	Marks can only be awarded for evidence (except one definition mark). Accept 'control group'. Go with the logic/intention of the candidate to assess if about validity. FFMQ is a valid measure of mindfulness (progress).

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Question	Answer	Marks	Guidance
9(a)	**Describe the sample used in the study by Fagen et al. (elephant learning).** 1 mark per correct point n=5 All females Same elephant stable in Nepal Four were juveniles/aged 5–7 years One was an adult/aged in her 50s Elderly elephant had foot abscess/impaired vision Selected for docility Not pregnant/no calf Mahout was willing to participate too All had been trained using traditional methods No experience of secondary positive reinforcement training.	**4**	List is definitive. Accept 'in captivity'.
9(b)	**Explain <u>one</u> similarity and <u>one</u> difference between the study by Fagen et al. (elephant learning) and the study by Bandura et al. (aggression). Do not refer to the sample in your answer.** Use the marking grid below. 4 marks for the similarity, e.g., observational, lack mundane realism, quantitative data collection 4 marks for the difference, e.g., qualitative data collection, experimental design used e.g., similarity e.g. 4 marks Both the Fagen study and the Bandura study used observation as part of their data collection techniques. This means that specific behaviours could be operationalised to improve validity (explanation). For example, in Fagen there was trunk down which meant the trunk was hanging loose and in Bandura gun play was pretending to shoot at an object in the room.	**8**	Award L1–L4 for similarity Award L1–L4 for difference For Level 4 there must be some attempt at *explaining* the similarity or difference. Different aim = L1 Different species = L0 (sample) Experimental designs = 0 Sample/sampling = 0 Both from the learning approach = L2 Fagen is **not** a field experiment so = 0

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<tr><th>Question</th><th>Answer</th><th>Marks</th><th>Guidance</th></tr>
<tr><td>9(b)</td><td>
3 marks
Both the Fagen study and the Bandura study used observation as part of their data collection techniques. For example, in Fagen there was trunk down which meant the trunk was hanging loose/Bandura gun play was pretending to shoot at an object in the room.

2 marks
Both the Fagen study and the Bandura study used observation as part of their data collection techniques. For example, in Fagen there was trunk down.

1 mark
Both the Fagen study and the Bandura study used observation as part of their data collection techniques
<table>
<tr><th>Mark/Level</th><th>Description</th></tr>
<tr><td>4</td><td>The similarity/difference is well explained using both studies as examples.</td></tr>
<tr><td>3</td><td>The similarity/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 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></tr>
<tr><td>1</td><td>The similarity/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 Piliavin et al. (subway Samaritans) in terms of <u>two</u> strengths and <u>two</u> weaknesses. At least one of your evaluation points must be about ethics.** Strengths include: Qualitative data, quantitative data, reliability, validity (ecological) Weaknesses include: Ethics, field experiments, validity, generalisations Example: in detail The study was unethical as one ethical guideline they broke was informed consent as no passenger had any information about the study/agreed to take part in the study. Also, the event of watching someone stagger and fall to ground could have been psychologically stressful for the passengers. Example: brief but in context The data collected was rich in detail and directly from the P. The data could be used to help explain why the Ps were helped or did not help. For example, one participant said, 'it's for men to help'. Example: no context The sample was only from one place making generalisability difficult.	**10**	

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<tr><th>Question</th><th>Answer</th><th>Marks</th><th>Guidance</th></tr>
<tr><td>10</td><td>
<table>
<tr><th>Level</th><th>Description</th><th>Mark</th></tr>
<tr><td>5</td><td>• Very good evaluation including the named issue.
• Thoroughly addresses both strengths and both weaknesses in detail.
• Selection of evidence is very thorough and effective.</td><td>9–10</td></tr>
<tr><td>4</td><td>• 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.</td><td>7–8</td></tr>
<tr><td>3</td><td>• 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.</td><td>5–6</td></tr>
<tr><td>2</td><td>• 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.</td><td>3–4</td></tr>
<tr><td>1</td><td>• Little or no evaluation.
• Discussion of strengths and weaknesses is absent or superficial.
• Selection of evidence is limited.</td><td>1–2</td></tr>
<tr><td>0</td><td>No creditable response.</td><td></td></tr>
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