

Cambridge International AS & A Level

PSYCHOLOGY**9990/12**

Paper 1 Approaches, issues and debates

May/June 2026**MARK SCHEME**Maximum Mark: 60

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This mark scheme contains the instructions and marking guidance that our examiners used to mark candidate responses for this component.

Before they start marking, examiners complete a standardisation process. They review a range of candidate responses and discuss the mark scheme in detail to agree which answers can and cannot be accepted. Examiners award marks where it is clear that candidate responses have met the requirements of the mark scheme. These requirements may vary between different components or different versions of the same component, depending on the exact requirements of the question and the candidate responses seen during the standardisation process.

Sometimes, our mark schemes may allow marks to be awarded to responses which contain elements that are factually incorrect or for content not covered by the syllabus. We do this in response to the demands of a specific question to support candidates and make sure that our assessments are fair. However, these allowances should not be used as a guide for teaching and learning.

We cannot discuss the mark scheme with schools, and we recommend that schools read the mark scheme together with the assessment material and the Principal Examiner Report for Teachers.

This document consists of **20** printed pages.

General marking principles

All examiners must apply these marking principles when marking candidate responses.

1	Examiners must award marks for each response in line with: - the specific content defined in the mark scheme - the specific skills defined in the mark scheme or in the level descriptions - the standard of response required as exemplified by the standardisation scripts.
2	Examiners must award whole marks (not half marks, or other fractions).
3	Examiners must award marks positively . This means that: - marks are not deducted for errors or omissions - marks are awarded for correct/valid answers as defined in the mark scheme and also for other valid answers which go beyond the scope of the syllabus and mark scheme referring to your team leader as appropriate - the quality of spelling, punctuation and grammar are judged only when the mark scheme indicates that these features are specifically assessed in the question. However, the meaning of all responses must be unambiguous.
4	Examiners must consistently apply the requirements of the mark scheme and any rules for what to do when candidates have not followed instructions correctly.
5	Examiners must use the full range of marks defined in the mark scheme, unless limited by the quality of the candidate responses seen.
6	Examiners must award marks according to the mark scheme and must not award marks with grade thresholds or grade descriptions in mind.

Social Sciences-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 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.

Annotations guidance for centres

Examiners use a system of annotations as a shorthand for communicating their marking decisions to one another. Examiners are trained during the standardisation process on how and when to use annotations. The purpose of annotations is to inform the standardisation and monitoring processes and guide the supervising examiners when they are checking the work of examiners within their team. The meaning of annotations and how they are used is specific to each component and is understood by all examiners who mark the component.

We publish annotations in our mark schemes to help centres understand the annotations they may see on copies of scripts. Note that there may not be a direct correlation between the number of annotations on a script and the mark awarded. Similarly, the use of an annotation may not be an indication of the quality of the response.

The annotations listed below were available to examiners marking this component in this series.

Annotations

Annotation	Meaning
	A creditworthy point made by the candidate A creditworthy 'what' for a generic everyday application question
	An incorrect response
	Benefit of Doubt
	Repetition of a point
	Unclear response
	The named issue in the 10-mark essay
    	Levels used for the 10-mark essay (L1–L5) Levels used for the 8-mark similarity/difference question (L1–L4)

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Annotation	Meaning
	Not Answering the Question
	The blank page has been seen. An attached response has been seen.
	A creditworthy strength in the 10-mark essay. A creditworthy 'how' for a generic everyday application question
	A creditworthy weakness in the 10-mark essay.
	A creditworthy point in the 10-mark essay that is brief
	A creditworthy point in the 10-mark essay that is detailed The mark for data in Q4
	A creditworthy identification mark in Q6(b)
	A creditworthy example in Q6(a)

Question	Answer	Marks	Guidance
1(a)	In the study by Hassett et al. (monkey toy preferences), there were two categories of toy used. One category was labelled ‘wheeled’. Name the other category of toy used. 1 mark for the correct answer. Plush.	1	Take the first answer <u>only</u>. Do not accept an example of a plush toy. Do accept soft/stuffed/plushies.
1(b)	Outline what is meant by the term ‘play’. 2 marks full definition. 1 mark partial/brief definition. e.g., an activity that is fun and engaging to the individual and is voluntary (2 marks). a fun activity (1 mark).	2	Ignore responses that are basically ‘play is playing’. Full = 2 components of voluntary and fun/engaging Partial = 1 component of voluntary or fun/engaging
1(c)	Outline <u>one</u> 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 (1 mark). There are other creditworthy responses.	2	Do not credit results. There are four things here: Hormones/biological Behavioural/preference (bias) Cognitive (bias) Social processes Three or more = full Two or less = partial Do not credit ‘environment’. Same as children’s choice = 1.

Question	Answer	Marks	Guidance
2(a)	The sample in the study by Dement and Kleitman (sleep and dreams) consisted of adults. Identify <u>three</u> features of the sample, other than that it consisted of adults. 1 mark per correct feature. (total) n=9. Mostly male/7 males. 2 females. 5 studied intensively/over 6–17 nights 4 used minimally to confirm results/over 1–2 nights	3	List is definitive. Do not accept '4 withdrew'. Accept opportunity sampling. Do not credit equal amounts of males and females. Do credit told to avoid caffeine/alcohol.
2(b)	Explain <u>one</u> weakness of the sample. 1 mark for identifying a weakness of the sample. 1 mark for example from the study by Dement and Kleitman. e.g., The sample lacks generalisability (1 mark) difficult as the sample may not fully represent females who may dream differently to males/have different types of dream/more likely to report dream content (1 mark).	2	'small sample' on its own is not enough for the example mark.

Question	Answer	Marks	Guidance
3	A local business wants to introduce ways to get employees to follow important safety rules in the workplace. Suggest what the local business could introduce, using your knowledge of the study by Milgram (obedience). Your suggestion(s) <u>must</u> be ethical. 1 mark per suggestion that is ethical. e.g., The manager could wear clothing that makes them look more authoritative. This could be a technician's coat. The business could have used persuasive 'prods' (to help encourage compliance). For example, 'it is very important for everyone to follow these safety rules'. These could be said with a stern/firm tone/voice. The employees could be paid a small amount for completing a course on safety rules. Use a (stern) authority figure like a boss/manager/expert. There are other creditworthy suggestions.	4	If the candidate focuses on a specific safety rule then that is fine. Go with the intention of the candidate. Do not credit hire a stooge, reduction of pay, physical punishment. Do not credit direct examples from Milgram. An expert can be taken as an authority figure.

Question	Answer	Marks	Guidance
4(a)	Outline <u>one</u> assumption of the cognitive approach, including an example from the study by Baron-Cohen et al. (eyes test). 2 marks for full assumption. 1 mark for partial/brief assumption. 1 mark for example from the study by Baron-Cohen et al. (must be linked to given assumption). e.g., 2 marks (assumption) Information is processed through the same route in all humans: input – process – output, in a similar way to how information is processed by a computer. People have individual differences in their cognitive processing such as with attention, language, thinking and memory (1 named). e.g., 1 mark (assumption) Information is processed through the same route in all humans: input – process – output. People process information like a computer. People have individual differences in their cognitive processing. e.g., 1 mark: example from Baron-Cohen Information processing assumption: participants in group 2/3/4 could see the pair of eyes (input), recognise the emotion (processing) then choose the correct emotion (output) [2 of these need to be correct to award the mark]. Individual differences: participants with HFA/AS were less likely to choose the correct emotion portrayed in the eyes compared to the other groups and their thinking process about emotions was impaired/lack Theory of Mind. There are other creditworthy responses.	3	Go with the intention of the candidate.  = example mark. Any response that states AS/HFA do 'worse' on RET = 0 marks for example.

Question	Answer	Marks	Guidance
4(b)	Outline <u>one</u> methodological strength of the study by Baron-Cohen et al. (eyes test). 1 mark for identifying the methodological strength. 1 mark for example from the study by Baron-Cohen et al. e.g., The study was standardised so could be replicated/tested for reliability (1 mark: identification). All participants saw the same 36 picture eyes test (1 mark: example). The study collected quantitative data so was objective/reduced bias/comparisons were meaningful (1 mark). Each participant got a score out of 36 on the RET (1 mark: examples). The revised version had improved validity to prevent a ceiling effect (1 mark: identification). There were now 4 rather than 2 options for each set of eyes (1 mark: example). Other creditworthy responses include validity of diagnosis to be in Group 1, internal validity, use of the glossary, other improvements from the original.	2	Do not credit any ethical strengths or application strengths. Quantitative data/standardisation by itself cannot get the ID mark. Do credit examples of improvement from the original eyes test.

Question	Answer	Marks	Guidance
5	Suggest <u>two</u> applications to everyday life of the study by Fagen et al. (elephant learning). Your suggestions <u>must</u> be ethical. 1 mark for what the application is (clearly based on Fagen et al.). 1 mark for how it will be achieved. e.g., Teachers can help students to learn new skills in the classroom (1 mark: what). They can use a token system to motivate the children to complete their work on time (1 mark: how). Can be used with domestic animals with treatment for problems (1 mark: what). An eye dropper can be moved closer to the eye with a treat until it is used effectively (1 mark: how). Vets/zookeepers can train animals to undertake clinical procedures voluntarily/decrease stress (1 mark: what) Primary/secondary reinforcement can be used to train service dogs (1 mark: what). There are other creditworthy suggestions.	4	Annotate in the following way: tick = what plus = how Any aspect of the study can be used for the how part. Go with the intentions of the candidate. Do not credit using SPR/rewards on animals for entertainment. If the 'what'/'how' is basically the same twice (e.g., same idea but just a different population) then only credit once. Do not credit responses that simple state 'people/children/animals can...' The application needs a specific population or specific scenario. SPR/reward by itself is <u>not</u> a creditworthy 'how'. Pet owner suggestions are creditworthy.

Question	Answer	Marks	Guidance
6(a)(i)	From the study by Saavedra and Silverman (button phobia): Explain whether each ethical guideline below was broken: Consent 1 mark for explaining the guideline. 1 mark for an example from the study (showing broken or not). e.g., guideline This is when a participant is given enough information before a study begins so they can decide whether they would like to participate (or not). e.g., example from study Both the child and the mother gave consent for the therapy/assessments.	2	For the example mark can mention just the boy or mother or both. Do not accept parents <u>s</u> gave consent. Guideline mark can be awarded for 'agreed to take part + knew the procedure/aim'.
6(a)(ii)	Minimising harm 1 mark for explaining the guideline. 1 mark for an example from the study (showing broken or not). e.g., guideline Participants should leave a study in the same mental/physical state as entering. In a study participants should not be exposed to more harm than they would in everyday life. There should be an attempt at reversing possible harm from participating in a study. e.g., example from study Being exposed to a stimulus (buttons) <u>during imagery exposure</u> was rated as being less distressing over time. Being exposed to a stimulus (buttons) <u>during behavioural exposure</u> was rated as being more distressing over time.	2	Imagery = less distress Behavioural = more distress 'Exposure therapy' by itself cannot get the example mark. In vivo = behavioural In vitro = imagery

Question	Answer	Marks	Guidance
6(b)	Explain how the ethical guideline of confidentiality was followed. 1 mark for outlining the guideline of confidentiality. 1 mark for an example showing how the study adhered to confidentiality. Any data should not be identifiable as a single participants' responses/participants' data must not be named as theirs (outline). All we know is that the child was Hispanic/from Florida (example).	2	The how mark can only be awarded with a direct example from the study. 'His name was never revealed' can be given the outline mark.

Question	Answer	Marks	Guidance
7	The debate about individual and situational explanations relates to the study by Pozzulo et al. (line-ups). Outline what is meant by this debate, including one example of the individual explanation and <u>one</u> example of the situational explanation. Both examples <u>must</u> be from the study by Pozzulo et al. (line-ups). 1 mark for outlining individual explanation plus 1 mark for example from Pozzulo. 1 mark for outlining situational explanation plus 1 mark for example from Pozzulo. e.g., individual The individual side refers to behaviours from factors within the person (dispositional) (1 mark). The identification rate for adults for human faces in a target-present line-up was 0.66 showing that people's memories do differ (1 mark). e.g., situational The situational side refers to behaviour from factors in the external environment (1 mark). The correct rejection rate in children for human faces in the target-absent line-up was 0.45 showing that social pressures made them choose the wrong face (1 mark). Children may have chosen a target in target-absent line-up due to social pressure (1 mark: alternative). There are other creditworthy responses.	4	Ignore tautological definitions including 'individual differences or individual factors'.  = example mark. Go with the intentions of the candidate. For the individual example, do accept arguments based around the memory of the children/adult. Any example that portrays individual differences in recall is creditworthy for the example of an individual explanation.

Question	Answer	Marks	Guidance
8	Describe the background to the study by Andrade (doodling). 1 mark per correct point made. e.g., Doodling could increase concentration/arousal or wanted to investigate whether doodling aids concentration/memory. Daydreaming had been linked to moments of boredom in people. It had been assumed that doing concurrent tasks (e.g., doodling) impairs concentration/distracts from primary task. Arousal levels need to be maintained to be able to concentrate. Boredom plays a role in paying attention to information. The effects of boredom on processing have been overlooked. Information processing can be difficult when asked to do 'two things at once'. Performance decrements may be lessened if a secondary task reduces mind-wandering/increases arousal. A secondary task can aid concentration if it does not compete with the primary task for cognitive resources (e.g., one visual and one audio task). Dual/multi-task designs for studies investigate our cognitive resources. There are other creditworthy points.	5	Ignore any reference to what Andrade did or found as this is about information prior to the study. 1 mark available for a definition of: either daydreaming or multi-tasking or doodling. Do not credit references to central executive or the <u>role</u> of daydreaming as these were discussed <u>after</u> the study.

Question	Answer	Marks	Guidance
9(a)	In the study by Hölzel et al., participants were brain scanned. Describe how and how often the participants were brain scanned. 1 mark per correct point. e.g. how (maximum 3 marks) All participants were scanned at the same centre. All participants were given an MRI scan. This was using a standard head coil (for the MRI scan). Data sets for the <u>whole</u> brain were collected. VBM was used to measure (grey) matter/used to segment grey and white matter/MRI used to record changes in brain density. e.g., how often (maximum 2 marks) The MBSR group were scanned two weeks before the program. The MBSR group were also scanned two weeks after the program. Control participants were scanned twice, two months apart.	4	OF = how often mark 'Once before and once after MBSR' = 1 mark only. 1 mark max available for any mechanism of an MRI (e.g., lie still in a long tube, not wearing metal). Average gap between scans: MBSR = 56 days Control = 66 days (tolerance is 2 days)
9(b)	Explain <u>one</u> similarity and <u>one</u> difference between the study by Hölzel et al. (mindfulness and brain scans) and the study by Dement and Kleitman (sleep and dreams). Do <u>not</u> refer to the sample. Use the marking grid below. 4 marks for the similarity, e.g., experimental, lack mundane realism, quantitative data collection, used scientific machinery, ethics. 4 marks for the difference, e.g., external validity, ethics, brain assessment techniques, experimental design used. e.g., similarity 4 marks Both studies collected quantitative data. This allowed a direct comparison between groups or conditions/objective analysis of data (explanation). In Hölzel, grey matter concentration was measured before and after MBSR and in Dement & Kleitman participant had to guess if they had been in REM for 5 or 15 minutes.	8	Award L1–L4 for similarity. Award L1–L4 for difference. For Level 4 there must be some attempt at <i>explaining</i> the similarity or difference. Max Level 3 can be awarded if the answer is just description with no explanation. Do not credit any response linked to the sample or generalisation of sample.

Question	Answer	Marks	Guidance
9(b)	3 marks Both studies collected quantitative data. In Hölzel, grey matter concentration was measured before and after MBSR and in Dement & Kleitman participant had to guess if they had been in REM for 5 or 15 minutes. 2 marks Both studies collected quantitative data. In Hölzel, grey matter concentration was measured before and after MBSR. 1 mark Both studies collected quantitative data. e.g., difference 4 marks Different techniques were used to measure the brain. Hölzel used an MRI scan to be able to see brain density changes after a mindfulness stress reduction course. Dement & Kleitman used 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 Different techniques were used to measure the brain. 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. 2 marks Hölzel used an MRI scan to measure brain density whilst Dement & Kleitman used an EEG. 1 mark Both studies used different techniques to measure the brain.		Different aim = L1 Different durations = L1 Both biological approach with correct assumptions = L3 max Both biological approach but no assumption, or assumption only = L1 If the similarity/difference is not explicitly stated by the candidate then L2 max. 'Easy to analyse/compare' is <u>not</u> an explanation for quantitative data.

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Question	Answer		Marks	Guidance
9(b)	Mark/ Level	Description		
	4	The similarity/difference is well explained using both studies as examples.		
	3	The similarity/difference is well explained but only one study is used as an example OR both studies are used briefly.		
	2	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.		
	1	The similarity/difference is brief with no attempt at using the studies as examples.		
	0	No creditable response.		

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 <u>must</u> be about quantitative data. Strengths include reliability, quantitative data, validity (external), observations. Weaknesses include validity (internal), sample, ethics. Example: in detail The study collected quantitative data which makes it easier to make meaningful comparisons between groups/conditions. They timed how quickly people helped/how many of each race helped. As a result, they could compare helping behaviour between different races or how different victims were helped. Example: brief but in context The study was unethical as one ethical guideline they broke was informed consent as no passenger had information about the study/agreed to take part in the study. Example: no context There were limited controls in place/situational variables so they could not establish cause and effect/has no internal validity.	10	Consult guidance document about how to place a response into an appropriate Level. For ethics, the following are creditworthy contexts: Confidentiality: only know it is NY etc. Harm: distress of watching Consent: just passengers on a subway Right to withdraw: stuck in the carriage/could move to adjacent Deception: victims/models not real Privacy: noting down the comments Debrief: they left the subway carriage at end/4450 Ps, lots of people in a carriage

Question	Answer			Marks	Guidance
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.			