



Cambridge International AS & A Level

PSYCHOLOGY

9990/11

Paper 1 Approaches, Issues and Debates

October/November 2022

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 2022 series for most Cambridge IGCSE™, Cambridge International A and AS Level components and some Cambridge O Level components.

This document consists of **12** printed pages.

Generic Marking Principles

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

GENERIC MARKING PRINCIPLE 1:

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

GENERIC MARKING PRINCIPLE 2:

Marks awarded are always **whole marks** (not half marks, or other fractions).

GENERIC MARKING PRINCIPLE 3:

Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

GENERIC MARKING PRINCIPLE 4:

Rules must be applied consistently, e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

GENERIC MARKING PRINCIPLE 5:

Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).

GENERIC MARKING PRINCIPLE 6:

Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

**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.

Question	Answer	Marks
1(a)	From the study by Dement and Kleitman (sleep and dreams): State the number of participants who were ‘studied intensively’ in this study. 1 mark for the correct answer. 5	1
1(b)	Describe the procedure used to investigate dream recall in this study. 1 mark per correct answer. An (ordinary) doorbell sound was used to wake participants; They were woken in REM or NREM sleep; It was placed near the bed; The participant had to speak into a recording device (next to the bed); They had to state if they had dreamed (or not); If they had, then they had to speak about the content; Sometimes an experimenter would enter the room and ask them more questions;	3

Question	Answer	Marks
2(a)	From the study by Saavedra and Silverman (button phobia): Name <u>two</u> stimuli that were rated 5 or higher on the boy’s Disgust/Fear Hierarchy. 1 mark per correct answer. Hugging mom wearing large plastic buttons; Hugging mom wearing regular/medium plastic buttons; Medium coloured plastic buttons; Medium clear plastic buttons; Small coloured plastic buttons; Small clear plastic buttons;	2
2(b)	Outline <u>one</u> conclusion from this study. 2 marks detailed conclusion 1 mark partial/brief conclusion e.g. Disgust does play a crucial role in the development and maintenance of a (button) phobia; Imagery exposure can have a positive long-term effect on reducing distress linked to phobias (2 marks); People can be successfully treated for phobias (1 mark); He was able to wear his school uniform at follow-up (0 marks: result); There are other creditworthy responses.	2

Question	Answer	Marks
3(a)	From the study by Baron-Cohen et al. (eyes test): Describe the sample for Group 1 in this study. Adults; Male; Diagnosed with AS/HFA; N = 15; Recruited via advertisements in magazine/volunteer sample; Similar socioeconomic class to Group 2; Similar education background to Group 2; IQ 115/similar IQ for Group 4; Mean age = 29.7 years;	3
3(b)	The original ‘Reading the Mind in the Eyes’ test had several problems. Two of these problems were: - the test only used 25 pairs of eyes - some words in the test were difficult to understand. State how this study solved each of these problems with the revised ‘Reading the Mind in the Eyes’ test. 1 mark per correct ‘resolution’ Problem 1: 25 pairs of eyes = there were 36 pairs of eyes used Problem 2: some words were difficult to comprehend = a glossary (of definitions) was available	2

Question	Answer	Marks
4(a)	From the study by Laney et al. (false memory): Describe the ‘Memory or Belief?’ questionnaire used in this study. 1 mark per correct point. They had to respond to three items on the FHI; Including the critical item about asparagus (loved asparagus the first time you tried it); They had three choices for their answer; Specific memory of the event; Had a belief the event had happened; Positive it had never occurred; They were encouraged to explain their answer choices;	4

Question	Answer	Marks
4(b)	Outline <u>one</u> weakness of the ‘Memory or Belief?’ questionnaire used in this study. 1 mark for identifying a weakness 1 mark for linking it to the study e.g. Memories can be subjective experiences/may not contain all truths (1 mark); therefore a participant stating that they had a specific memory <u>about asparagus</u> may not be true before the false memory was implanted (reducing validity) (1 mark: link). Other creditworthy weaknesses include: restricted choices, issues/potential lack of qualitative responses, social desirability.	2

Question	Answer	Marks
5(a)	From the study by Piliavin et al. (subway Samaritans): Describe the results in the ‘no model’ condition when help was given. You <u>must</u> use data in your answer. 2 marks available for full result (with meaningful comparison) 1 mark per partial/brief result (no meaningful comparison) 1 mark for correct use of data (can be for one condition only) e.g. There were the same rates of helping in the black victim with a cane condition compared to the white victim with a cane (2 marks: comparison). This was 100% (1 mark: data); The rate of helping was higher in the white drunk victim condition compared to the black drunk victim condition (2 marks: comparison); The ill victim was more likely to be helped compared to the drunk victim (2 marks: comparison) Least help was given in the black drunk victim condition (1 mark: no comparison) Least help was given in the black drunk victim condition at a rate of 73% (1 mark: no comparison <i>plus</i> 1 mark: data); Males helped more (1 mark: no comparison); Males helped more as 90% of help came from males (1 mark: no comparison <i>plus</i> 1 mark: data) There was a tendency for same-race helping in the drunk condition (1 mark: no comparison); There are other creditworthy responses.	3

Question	Answer	Marks
5(b)	Outline <u>one</u> methodological strength of this study. 1 mark for identifying a strength 1 mark for linking it to the study e.g. The event used had high mundane realism (1 mark). A person collapsing on a subway train is an event that can happen in the real world (1 mark); There was a high level of standardisation so replicability is high (1 mark). Victims/models were given instructions on how to act so the study can be tested for reliability (1 mark); Other creditworthy strengths include: ecological validity, sample characteristics.	2

Question	Answer	Marks
6	The debate about nature versus nurture relates to the study by Schachter and Singer (two factors in emotion). Outline what is meant by this debate. Include <u>one</u> example for nature and <u>one</u> example for nurture from the study by Schachter and Singer. 1 mark for the nature side of argument; 1 mark for example from study 1 mark for the nurture side of argument; 1 mark for example from study e.g. definition Nature means a behaviour that we are born with/genetic/hard-wired (1 mark). Nurture means a behaviour that has been learned by an organism after birth (1 mark); e.g. examples Some participants may have reacted to the epinephrine as they were hard-wired to do so (nature); Some participants may have joined in the activities because of the environment of having the stooge act in a certain way (nurture)	4

Question	Answer	Marks
7	Makena has a job creating advertisements for television. She wants to use emotion to advertise a new product and asks you for advice. Outline the advice you would give to Makena, using your knowledge of the study by Canli et al. (brain scans and emotions). 1 mark per piece of evidence clearly based on the study by Canli et al. e.g. Makena could use imagery that she sees as being emotionally intense; She could show imagery for around 3 secs (each) in the advertisement; She could choose imagery for the product that has already been rated as highly arousing; She could choose imagery for the product that has already been rated as having high valence; The imagery could be randomised each time the advertisement is shown; The imagery could be chosen to link with the TV programme that the advertisements follow (or other way around);	4

Question	Answer	Marks
8(a)	Outline what is meant by the ethical guideline of ‘privacy’. 2 mark for full definition; 1 mark for partial/brief definition Participants have the right to not reveal personal details that they would not do in everyday life (2 marks); Participants have the right to ignore questions/part of a study that they are uncomfortable with (2 marks) Participants can ignore personal questions (1 mark); Don't make them reveal too much (1 mark); Not revealing people's names (0 mark: confidentiality);	2

Question	Answer	Marks
8(b)	From the Bandura et al. study (aggression): Two friends, Adria and Don, are discussing this study in terms of ethics. Adria believes the study is ethical but Don believes the study is <u>not</u> ethical. Outline why you think <u>either</u> Adria <u>or</u> Don is correct, using evidence from the study. 1 mark per point made, with: Up to 2 marks for any knowledge of relevant ethical guidelines. Up to 3 marks for explanation(s) or consequences(s) of breaking a guideline. e.g. Adria It can be argued that the study followed the confidentiality guideline (1 mark: guideline). All we know is that the children were at Stanford University Nursery and their age ranges (1 mark: explanation). It can be argued that the children were <u>protected</u> from physical harm (1 mark: guideline). This is because the Bobo Doll is designed to be hit and is soft so would not injure a child (1 mark: explanation). e.g. Don It can be argued that the study broke the ethical guideline of <u>protection</u> from psychological harm. (1 mark: guideline). The children witnessed an adult being aggressive so they may have been scared of this and did not leave the study in the same psychological state as they entered (1 mark: explanation). There was a lack of informed consent taken (1 mark: guideline). The children/parents were not asked permission to take part in the study (1 mark: explanation)	4

Question	Answer	Marks
9(a)	Describe the psychology being investigated in the study by Milgram (obedience). 1 mark for each correct statement Examples from the study Milgram can gain credit (max 1) e.g. The study was investigating if obedience is socialised; Testing out the situational hypothesis of the environment affecting our behaviour; Obedience is about how much we follow the orders of an authority figure; The agentic state refers to when we give up our free will for the good of the authority figure; The autonomous state refers to when we follow our own morals and are not swayed by others; In this study the effect of prods was looked at to see if people would give an electric shock to a stranger (example mark); Moral strain is experienced when we follow an authority figure but do not agree with it;	4

Question	Answer	Marks																		
9(b)	Explain <u>one</u> similarity and one difference between the study by Milgram (obedience) and <u>one</u> other study from the social approach. 4 marks available for the similarity, e.g. ethics, situational, controls, quantitative data 4 marks available for the difference, e.g. species, setting, participants <i>Similarity</i> e.g. 4 marks Both the Milgram and Piliavin studies have ethical issues of deception. In the Milgram study, participants believed they were giving real electric shocks to a complete stranger who could not remember word pairs. In the Piliavin study, the participants were led to believe that the drunk or ill victim was actually in need of help. e.g. 3 marks Both the Milgram and Piliavin studies have ethical issues of deception. In the Milgram study, participants believed they were giving real electric shocks to a complete stranger who could not remember word pairs e.g. 2 marks Both the Milgram and Piliavin studies have ethical issues of deception as in both participants never knew that the scenarios were fake. e.g. 1 mark Both the Milgram and Piliavin studies had ethical issues. <table border="1"> <thead> <tr> <th>Level</th><th>Descriptor</th><th>Mark</th></tr> </thead> <tbody> <tr> <td>4</td><td>The similarity/difference is well explained using both studies as examples</td><td>4 marks</td></tr> <tr> <td>3</td><td>The similarity/difference is well explained but only one study is used as an example OR both studies used briefly</td><td>3 marks</td></tr> <tr> <td>2</td><td>The similarity/difference is brief with an attempt at using at least one study as an example OR The similarity/difference is well explained but there is no study evidence</td><td>2 marks</td></tr> <tr> <td>1</td><td>The similarity/difference is brief with no attempt at using studies as examples</td><td>1 mark</td></tr> <tr> <td>0</td><td>No creditworthy material</td><td>0 marks</td></tr> </tbody> </table>	Level	Descriptor	Mark	4	The similarity/difference is well explained using both studies as examples	4 marks	3	The similarity/difference is well explained but only one study is used as an example OR both studies used briefly	3 marks	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	2 marks	1	The similarity/difference is brief with no attempt at using studies as examples	1 mark	0	No creditworthy material	0 marks	8
Level	Descriptor	Mark																		
4	The similarity/difference is well explained using both studies as examples	4 marks																		
3	The similarity/difference is well explained but only one study is used as an example OR both studies used briefly	3 marks																		
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	2 marks																		
1	The similarity/difference is brief with no attempt at using studies as examples	1 mark																		
0	No creditworthy material	0 marks																		

Question	Answer	Marks
10	Evaluate the study by Andrade (doodling) in terms of <u>two</u> strengths and <u>two</u> weaknesses. At least one of your evaluation points <u>must</u> be about reliability. Strengths include: validity (internal), reliability, quantitative data Weaknesses include: validity (external), generalisability, ethics Level 4 (8–10 marks) • Evaluation is comprehensive. • Answer demonstrates evidence of careful planning, organisation and selection of material. • Analysis (valid conclusions that effectively summarise issues and arguments) is evident throughout. • Answer demonstrates an excellent understanding of the material. Level 3 (6–7 marks) • Evaluation is good. • Answer demonstrates some planning and is well organised. • Analysis is often evident but may not be consistently applied. • Answer demonstrates a good understanding of the material. Level 2 (4–5 marks) • Evaluation is mostly appropriate but limited. • Answer demonstrates limited organisation or lacks clarity. • Analysis is limited. • Answer lacks consistent levels of detail and demonstrates a limited understanding of the material. Level 1 (1–3 marks) • Evaluation is basic. • Answer demonstrates little organisation. • There is little or no evidence of analysis. • Answer does not demonstrate understanding of the material. Level 0 (0 marks) No response worthy of credit.	10



Cambridge International AS & A Level

PSYCHOLOGY

9990/12

Paper 1 Approaches, Issues and Debates

October/November 2022

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 2022 series for most Cambridge IGCSE™, Cambridge International A and AS Level components and some Cambridge O Level components.

This document consists of **14** printed pages.

Generic Marking Principles

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

GENERIC MARKING PRINCIPLE 1:

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

GENERIC MARKING PRINCIPLE 2:

Marks awarded are always **whole marks** (not half marks, or other fractions).

GENERIC MARKING PRINCIPLE 3:

Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

GENERIC MARKING PRINCIPLE 4:

Rules must be applied consistently, e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

GENERIC MARKING PRINCIPLE 5:

Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).

GENERIC MARKING PRINCIPLE 6:

Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

**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.

Question	Answer	Marks
1(a)	In the study by Pepperberg (parrot learning), Alex the parrot could choose from three labels when asked ‘What’s same?’ about two objects. Two of these labels were colour and shape. Name the label that Alex could use to answer the ‘What’s same?’ question in this study, other than colour and shape. 1 mark for the correct answer Matter/mah-mah	1
1(b)	Describe the ‘model/rival’ procedure used in this study. 1 mark per correct point made There is a trainer and a model; The trainer presents objects to a second human (model); They ask questions about the objects; They praise/reward the correct answers; They show disapproval for incorrect answers; The second human acts as a model for Alex/the bird; And as a rival for the trainer’s attention/rival Alex for attention; The role of model and rival were reversed;	3

Question	Answer	Marks
2(a)	From the study by Dement and Kleitman (sleep and dreams): Outline <u>one</u> aim of this study. 2 marks = full aim 1 mark = partial aim e.g. To investigate if dream recall differs between REM and nREM stages of sleep (2 marks); To investigate dream recall and stages of sleep (1 mark); To investigate if there was a (positive) correlation between estimates of dream duration and length of REM sleep (2 marks); To investigate estimates of dream duration (1 mark); To investigate if eye movement patterns were related to dream content (2 marks); To investigate eye movement and dreams (1 mark);	2
2(b)	Outline <u>one</u> of the dreams reported where a participant was driving a car. 2 marks detailed outline; 1 mark brief outline e.g. 2 marks Driving a car and staring at the road ahead. At an intersection, a car appeared speeding at them. (2) Driving a car and staring at the road ahead. They saw a man on the road asking for a lift/on left. (2) e.g. 1 mark Driving a car and staring at the road ahead. (1) At an intersection, a car appeared speeding at them. (1) They saw a man on the road asking for a lift. (1)	2

Question	Answer	Marks
3(a)	From the study by Baron-Cohen et al. (eyes test): Describe the sample for Group 2 in this study. Adults; From adult community classes (Exeter); From public library users (Cambridge); N = 122; Opportunity sample; Similar socioeconomic class to Group 1 / wide range of occupations; Similar education background to Group 1 / broad range of education levels; Data on age only available from 88 participants; Neurotypical/not diagnosed with AS/HFA.	3
3(b)	The original ‘Reading the Mind in the Eyes’ test had several problems. Two of these problems were: • the test only had two response options for each pair of eyes • some words in the test were difficult to understand State how this study solved each of these problems with the revised ‘Reading the Mind in the Eyes’ test. 1 mark per correct ‘solution’ Problem 1: two response options = increased it to four response options / added two more options. Problem 2: some words were difficult to comprehend = a glossary (of definitions) was available.	2

Question	Answer	Marks
4(a)	From the study by Laney et al. (false memory): Describe the Food Costs Questionnaire used in this study. 1 mark per correct point made Participants had to indicate how much they were willing to pay; For 21 food items in a grocery store; Several of these foods (including asparagus) had featured on earlier questionnaires; They did this by circling the price; From seven priced given options / eight options in total; There was a 'would never buy it' option too; Prices were \$1.90 / \$2.50 / \$3.20 / \$3.80 / \$4.40 / \$5.00 / \$5.70 (2 correct = 1 mark maximum).	4
4(b)	Outline <u>one</u> weakness of the Food Costs Questionnaire used in this study. 1 mark for a weakness 1 mark for linking it to the study e.g. What people say they will do on a questionnaire may not 'mirror' their behaviour (1 mark); therefore, just because they would spend a certain amount of money does not mean that actually will (1 mark). It is a subjective measure (1 mark) Only a transient measure / less valid (1 mark) Other creditworthy examples include: social desirability, lack of qualitative data, not used to groceries.	2

Question	Answer	Marks
5(a)	The study by Schachter and Singer investigated two factors in emotion. An Activity Index was used to collect results in the Euphoria condition. Describe the results from the Activity Index for the Epinephrine Informed (Epi Inf) group compared to the placebo group. You <u>must</u> use data in your answer. 1 mark for stating which group scored highest/lowest 1 mark for describing what the result meant 1 mark for using data (can be just the data for one group) e.g. The score on the Activity Index was higher for the Placebo / lower for the Epi Inf (1 mark) which meant the Placebo joined in more with the stooge <i>or</i> were more euphoric / Epi Inf joined in less <i>or</i> were less euphoric (1 mark). The average score was 12.72 (Epi Inf) and 16 (Placebo) (1 mark for either).	3
5(b)	Outline <u>one</u> methodological strength of this study. 1 mark for identifying a strength 1 mark for linking it to the study e.g. There was a high level of standardisation, so replicability is high (1 mark). The stooges were given instructions on how to act so the study can be tested for reliability (1 mark). Quantitative data were collected so it was objective / easy to compare (1 mark). The activity index generated a score to show how euphoric a participant was so all (four) conditions could be directly compared (1 mark). Other creditworthy strengths include: (internal) validity.	2

Question	Answer	Marks
6	The debate about individual and situational explanations relates to the study by Milgram (obedience). Outline what is meant by this debate. Include <u>one</u> example from the individual explanation and <u>one</u> example from the situational explanation from the study by Milgram. 1 mark for the individual side of argument; 1 mark for example from study 1 mark for the situational side of argument; 1 mark for example from study e.g. definitions The individual side refers to behaviours from factors within the person (dispositional); The situational side refers to behaviour from factors in the external environment. e.g. examples Some participants may have been more obedient because of their 'personality' type, e.g. being more submissive (individual); Some participants refused to continue whilst others went to 450 v (individual); Some participants may have been more obedient because of the experiment or prods given to make them continue shocking (situational); Some participants may have been more obedient due to the presence of an authority figure (situational). There are other creditworthy examples.	4

Question	Answer	Marks
7	Omar organises a football team for children but they are sometimes too aggressive during games. He wants to reduce this aggressive behaviour and asks you for advice. Outline the advice you would give to Omar, using your knowledge of the study by Bandura et al. (aggression). 1 mark per piece of evidence clearly based on the study by Bandura et al. e.g. Omar could bring in a trainer/model that is non-aggressive; The children could be asked to watch the model as they play football (non-aggressively); Omar can monitor physical aggression in boys as they are more likely to display it; Omar could reward the <u>model</u> for their non-aggressive behaviour; Ask the parents to make the children watch non-aggressive TV / play non-aggressive video games; Omar could make sure the children are not annoyed/frustrated before a game (of football).	4

Question	Answer	Marks
8(a)	From the study by Piliavin et al. (subway Samaritans): Name <u>two</u> features of the sample in this study. 1 mark per correct feature: About 4450 participants; New York City; Subway passengers; 45% black / 55% white; Opportunity sampled; Mean number of people per car was 43.	2
8(b)	Two friends, Saad and Amina, are discussing this study in terms of generalisability. Saad believes the study does have generalisability but Amina believes the study does <u>not</u> have generalisability. Outline why you think <u>either</u> Saad <u>or</u> Amina is correct, using evidence from the study. 1 mark per point made, with: Up to 2 marks for any relevant information from the study / facts about the sample. Up to 3 marks for explanation(s), including who can/cannot be generalised to. e.g. Saad There was a very large amount of people who were participants / 4450 participants (1 mark: information) representing a potential wide range of occupations/cultures/background (1 mark: information) so they could easily represent the <u>helping behaviour</u> of many other different people (1 mark: explanation). The sample was large with both genders represented (1 mark: information). e.g. Amina They were all from one location on a subway (1 mark: information) which is restrictive in terms of the type of people used in the sample (1 mark: explanation). It might be that the results only apply to subway passengers and not rural-living people (1 mark: explanation) and it is possible that the same people were 'regulars' on this route (1 mark: explanation). They <u>only</u> used a sample from New York/Bronx (1 mark: information) so this may not represent the helping behaviour of people with different cultural customs (1 mark: explanation). They <u>only</u> used victims that were black or white (1 mark: information). The victims were <u>only</u> males (1 mark: information).	4

Question	Answer	Marks
9(a)	Describe the psychology being investigated in the study by Andrade (doodling). 1 mark for each correct statement 1 mark available for a general assumption of the cognitive approach 1 mark available for a specific example from Andrade e.g. Looking at whether doodling aides (cognitive) concentration (example mark); Arousal levels need to be maintained to be able to concentrate; Cognitive processing of dual tasks; That compete for the same levels of performance; Boredom plays a role in paying attention to information; Information processing when asked to do ‘two things at once’; The cognitive approach is about input-process-output (mark for assumption); There are other creditworthy responses.	4

Question	Answer	Marks																		
9(b)	Explain <u>one</u> similarity and <u>one</u> difference between the study by Andrade (doodling) and <u>one</u> other study from the cognitive approach. 4 marks available for the similarity, e.g. laboratory based, quantitative data; experimental design 4 marks available for the difference, e.g. participants (sample or demographics); ethics <i>Similarity</i> e.g. 4 marks Both Andrade and Laney studies were experimental in nature. For example, both studies had manipulated IVs. In the Andrade study there were two conditions of doodling and non-doodling. In Laney study there was also two conditions of love asparagus and a control. e.g. 3 marks Both Andrade and Laney studies were experimental in nature. For example, both studies had manipulated IVs. In the Andrade study there were two conditions of doodling and non-doodling. e.g. 2 marks Both Andrade and Laney studies were experimental in nature. For example, both studies had manipulated IVs. e.g. 1 mark Both Andrade and Laney were experimental in nature. <table border="1"> <thead> <tr> <th>Level</th><th>Descriptor</th><th>Marks</th></tr> </thead> <tbody> <tr> <td>4</td><td>The similarity/difference is well explained using both studies as examples.</td><td>4</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 used briefly.</td><td>3</td></tr> <tr> <td>2</td><td>The similarity/difference is brief with an attempt at using at least one study as an example OR The similarity/difference is well explained but there is no study evidence.</td><td>2</td></tr> <tr> <td>1</td><td>The similarity/difference is brief with no attempt at using studies as examples.</td><td>1</td></tr> <tr> <td>0</td><td>No creditworthy material.</td><td>0</td></tr> </tbody> </table>	Level	Descriptor	Marks	4	The similarity/difference is well explained using both studies as examples.	4	3	The similarity/difference is well explained but only one study is used as an example OR both studies used briefly.	3	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.	2	1	The similarity/difference is brief with no attempt at using studies as examples.	1	0	No creditworthy material.	0	8
Level	Descriptor	Marks																		
4	The similarity/difference is well explained using both studies as examples.	4																		
3	The similarity/difference is well explained but only one study is used as an example OR both studies used briefly.	3																		
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.	2																		
1	The similarity/difference is brief with no attempt at using studies as examples.	1																		
0	No creditworthy material.	0																		

Question	Answer	Marks
10	Evaluate the study by Canli et al. (brain scans and emotions) in terms of <u>two</u> strengths and <u>two</u> weaknesses. At least one of your evaluation points must be about validity. Strengths include: validity (internal), reliability, quantitative data Weaknesses include: generalisability, validity (external), ethics Level 4 (8–10 marks) • Evaluation is comprehensive. • Answer demonstrates evidence of careful planning, organisation and selection of material. • Analysis (valid conclusions that effectively summarise issues and arguments) is evident throughout. • Answer demonstrates an excellent understanding of the material. Level 3 (6–7 marks) • Evaluation is good. • Answer demonstrates some planning and is well organised. • Analysis is often evident but may not be consistently applied. • Answer demonstrates a good understanding of the material. Level 2 (4–5 marks) • Evaluation is mostly appropriate but limited. • Answer demonstrates limited organisation or lacks clarity. • Analysis is limited. • Answer lacks consistent levels of detail and demonstrates a limited understanding of the material. Level 1 (1–3 marks) • Evaluation is basic. • Answer demonstrates little organisation. • There is little or no evidence of analysis. • Answer does not demonstrate understanding of the material. Level 0 (0 marks) No response worthy of credit.	10



Cambridge International AS & A Level

PSYCHOLOGY

9990/13

Paper 1 Approaches, Issues and Debates

October/November 2022

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 2022 series for most Cambridge IGCSE™, Cambridge International A and AS Level components and some Cambridge O Level components.

This document consists of **14** printed pages.

Generic Marking Principles

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

GENERIC MARKING PRINCIPLE 1:

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

GENERIC MARKING PRINCIPLE 2:

Marks awarded are always **whole marks** (not half marks, or other fractions).

GENERIC MARKING PRINCIPLE 3:

Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

GENERIC MARKING PRINCIPLE 4:

Rules must be applied consistently, e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

GENERIC MARKING PRINCIPLE 5:

Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).

GENERIC MARKING PRINCIPLE 6:

Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

**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.

Question	Answer	Marks
1(a)	From the study by Andrade (doodling): State the number of participants that were in the doodling group in this study. 1 mark for the correct answer 20	1
1(b)	Describe the mock telephone message used in this study. 1 mark per correct point made Recorded on (audio) cassette; Monotone or calm voice / monotonous/dull/boring; 227 words per minute; Lasted for 2.5 minutes; Comfortable listening volume / different volume for each participant; It contained the names of eight people attending the party; There were also the names of three people and a cat, who were not attending; Eight place names were mentioned; Other irrelevant material was contained in the message;	3

Question	Answer	Marks
2(a)	From the study by Dement and Kleitman (sleep and dreams): Outline the relationship between the duration of time spent in REM sleep and the length of dream narrative in this study. 2 marks for full outline 1 mark for partial outline e.g. The longer a participant was in REM sleep, the longer their dream narratives were (2 marks) Positive correlation (1 mark)	2
2(b)	Outline <u>one</u> conclusion from this study. 2 marks for full answer 1 mark for partial/brief answer e.g. People can judge the duration of their time in REM with accuracy (2 marks) 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) Eye movements match dreams (1 mark) Dreaming happens more in REM (1 mark) People can judge REM length (1 mark)	2

Question	Answer	Marks
3(a)	From the study by Baron-Cohen et al. (eyes test): Describe the sample for Group 3 in this study. 1 mark per correct point Adults/students; Studying for undergraduate degrees / at Cambridge University; Majority studying science; N = 103; Equal male/female; Assumed to have high IQ; Not diagnosed with AS/HFA; Mean age = 20.8 years.	3
3(b)	The original ‘Reading the Mind in the Eyes’ test had several problems. Two of these problems were: • the test only used 25 pairs of eyes • the two response options in the test were semantic opposites. State how this study solved each of these problems with the revised ‘Reading the Mind in the Eyes’ test. 1 mark per correct ‘solution’ Problem 1: 25 pairs of eyes = there were 36 pairs of eyes used Problem 2: the two response options were semantic opposites = three foils had similar ‘valence’ (emotion)	2

Question	Answer	Marks
4(a)	Prior to the experimental part of the study by Bandura et al. (aggression), the children were observed and rated for their baseline aggressive behaviour. State where the children were observed in this part of the study. 1 mark for correct answer (Stanford University) Nursery (School).	1
4(b)	State <u>one</u> person who observed the children in this part of the study. 1 mark for correct answer Experimenter; (Nursery School) Teacher.	1
4(c)	Outline how the children were rated for their baseline aggressive behaviour in this part of the study. 1 mark per correct point 1 mark available for naming one of the scales used Rated on four different scales about aggression; All five point ratings; Scales = physical aggression / verbal aggression / aggression towards inanimate objects / aggression inhibition (name 2 for 1 mark) They were rated independently; A composite score was given to all children / scores for scales were added up for each child;	2
4(d)	Outline <u>one</u> weakness of how the children were rated for their baseline aggressive behaviour in this part of the study. 1 mark for identifying a weakness 1 mark for relating it to this part of the study e.g. It is a subjective measure of aggression (1 mark); the teacher may already have an incorrect idea about how aggressive a child is making it less valid / may have a bias against one of the children making their score more 'aggressive' (1 mark); It is a subjective measure (1 mark); Only a transient measure (1 mark). Other creditworthy weaknesses include: acting nicely at school, extraneous variables, validity.	2

Question	Answer	Marks
5(a)	The study by Schachter and Singer investigated two factors in emotion. An Activity Index was used to collect results in the Euphoria condition. Describe the results from the Activity Index for the Epinephrine Misinformed (Epi Mis) group compared to the placebo group. You <u>must</u> use data in your answer. 1 mark for stating which group scored highest/lowest 1 mark for describing what the result meant 1 mark for using data (can be just the data for one group) e.g. The score on the Activity Index was higher for the Epi Mis / lower for the Placebo (1 mark) which meant the Epi Mis joined in more with the stooge <i>or</i> were more euphoric / Placebo joined in less <i>or</i> were less euphoric (1 mark). The average score was 22.56 (Epi Mis) and 16 (Placebo) (1 mark for either).	3
5(b)	Outline <u>one</u> methodological weakness of this study. 1 mark for identifying a weakness 1 mark for linking it to the study e.g. There was low mundane realism for this study (1 mark: identification), as the act of being injected and then being in a room with a stranger does not happen in the real world (1 mark: relating); The study had low ecological validity (1 mark: identification); The study could have caused psychological harm (0 marks: not methodological). Other creditworthy weaknesses include: sample/generalisability, difficult to standardise stooge, use of independent groups.	2

Question	Answer	Marks
6	Outline what is meant by the ‘social approach’ in psychology. Include examples from the study by Yamamoto et al. (chimpanzee helping) in your answer. Up to two marks for outlining the social approach (through an assumption or description) Up to two marks for examples from Yamamoto only e.g. social approach We are affected by the people/individuals around us; Groups / social context can affect our behaviour; We identify with certain social groups / people. e.g. examples Some chimpanzees may have solved the problem because of the scenario of being able to see what the other chimpanzee needed to complete the task; Influenced by the behaviour of another chimpanzee who requested a tool to be given to them.	4

Question	Answer	Marks
7	A teacher, Nina, has some students who are having difficulty learning a new skill. She wants to help these students to learn this new skill and asks you for advice. Outline the advice you would give to Nina, using your knowledge of the study by Pepperberg (parrot learning). 1 mark per piece of evidence clearly based on the study by Pepperberg e.g. One teacher can act as a trainer/teacher to another adult; They present objects and ask questions about the skill; They are given praise / rewarded for correct skill acquisition (e.g. keep item); They show disapproval of incorrect skill acquisition (e.g. item taken away); The children should be allowed to participate in any verbal exchanges / ask questions; The teacher and the model can swap roles; Model can show/demonstrate new skill to students; Model can compete with students / be a rival to the students.	4

Question	Answer	Marks
8(a)	Outline what is meant by the ethical guideline of ‘confidentiality’. 2 mark for full definition 1 mark for partial/brief definition All data needs to be stored separately from personal data like the participants’ names (2 marks); Any identifiable feature of a participant must not be published (2 marks); Do not take personal details (1 mark); Revealing more than they would usually (0 marks: this is privacy).	2
8(b)	From the study by Canli et al. (brain scans and emotions): Two friends, Willow and Leo, are discussing this study in terms of ethics. Willow believes the study is ethical but Leo believes the study is <u>not</u> ethical. Outline why you think <u>either</u> Willow <u>or</u> Leo is correct, using evidence from the study. 1 mark per point made, with: Up to 2 marks for any relevant finding(s)/knowledge of ethical guidelines Up to 3 marks for explanation(s) or consequence(s) of breaking guideline e.g. Willow It can be argued that the study followed the confidentiality guideline (1 mark: guideline). All we know is that the participants were right-handed females (1 mark: explanation). This means that it would be impossible to identify any of the participants who took part in the study (1 mark: explanation). Informed consent implied as volunteers (1 mark: guideline). e.g. Leo It can be argued that the study broke the ethical guideline of protection from psychological harm. (1 mark: guideline). The participants had to look at some imagery that could have been disturbing (1 mark: explanation) so did not leave the study in the same psychological state as they entered (1 mark: explanation). Participants were deceived at certain points in the study (1 mark: guideline).	4

Question	Answer	Marks
9(a)	In Experiment 2 of the study by Laney et al. (false memory), participants had to view twenty slides of common food. Describe what participants were asked to do immediately after viewing each slide. 1 mark for each correct point made They had to rate each photograph on four scales; How appetising/disgusting they found the photograph (1 mark for either of these); Whether the photographer was novice, amateur or professional (2 needed for mark); Artistic quality of the photo was rated / photography rated; They were rated on an 8 point scale / from 1–8; 1 = not at all, to 8 = very much (need both to gain this mark);	4

Question	Answer	Marks																		
9(b)	Explain <u>one</u> similarity and <u>one</u> difference between the study by Laney et al. (false memory) and <u>one</u> other study from the cognitive approach. 4 marks available for the similarity, e.g. laboratory based, quantitative data 4 marks available for the difference, e.g. participants (sample or demographics) <i>Similarity</i> e.g. 4 marks Both Andrade and Laney studies were experimental in nature. For example, both studies had manipulated IVs. In the Andrade study there were two conditions of doodling and non-doodling. In Laney study there were also two conditions of love asparagus and a control. e.g. 3 marks Both Andrade and Laney studies were experimental in nature. For example, both studies had manipulated IVs. In the Andrade study there were two conditions of doodling and non-doodling. e.g. 2 marks Both Andrade and Laney studies were experimental in nature. For example, both studies had manipulated IVs. e.g. 1 mark Both Andrade and Laney were experimental in nature. <table border="1"> <thead> <tr> <th>Level</th><th>Descriptor</th><th>Marks</th></tr> </thead> <tbody> <tr> <td>4</td><td>The similarity/difference is well explained using both studies as examples.</td><td>4</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 used briefly.</td><td>3</td></tr> <tr> <td>2</td><td>The similarity/difference is brief with an attempt at using at least one study as an example OR The similarity/difference is well explained but there is no study evidence.</td><td>2</td></tr> <tr> <td>1</td><td>The similarity/difference is brief with no attempt at using studies as examples.</td><td>1</td></tr> <tr> <td>0</td><td>No creditworthy material.</td><td>0</td></tr> </tbody> </table>	Level	Descriptor	Marks	4	The similarity/difference is well explained using both studies as examples.	4	3	The similarity/difference is well explained but only one study is used as an example OR both studies used briefly.	3	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.	2	1	The similarity/difference is brief with no attempt at using studies as examples.	1	0	No creditworthy material.	0	8
Level	Descriptor	Marks																		
4	The similarity/difference is well explained using both studies as examples.	4																		
3	The similarity/difference is well explained but only one study is used as an example OR both studies used briefly.	3																		
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.	2																		
1	The similarity/difference is brief with no attempt at using studies as examples.	1																		
0	No creditworthy material.	0																		

Question	Answer	Marks
10	Evaluate the study by Milgram (obedience) in terms of <u>two</u> strengths and <u>two</u> weaknesses. At least one of your evaluation points <u>must</u> be about generalisability. Strengths include: reliability, quantitative data Weaknesses include: validity (external), ethics, generalisability Level 4 (8–10 marks) • Evaluation is comprehensive. • Answer demonstrates evidence of careful planning, organisation and selection of material. • Analysis (valid conclusions that effectively summarise issues and arguments) is evident throughout. • Answer demonstrates an excellent understanding of the material. Level 3 (6–7 marks) • Evaluation is good. • Answer demonstrates some planning and is well organised. • Analysis is often evident but may not be consistently applied. • Answer demonstrates a good understanding of the material. Level 2 (4–5 marks) • Evaluation is mostly appropriate but limited. • Answer demonstrates limited organisation or lacks clarity. • Analysis is limited. • Answer lacks consistent levels of detail and demonstrates a limited understanding of the material. Level 1 (1–3 marks) • Evaluation is basic. • Answer demonstrates little organisation. • There is little or no evidence of analysis. • Answer does not demonstrate understanding of the material. Level 0 (0 marks) No response worthy of credit.	10