



Cambridge International AS & A Level

PSYCHOLOGY

9990/11

Paper 1 Approaches, Issues and Debates

May/June 2021

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 May/June 2021 series for most Cambridge IGCSE™, Cambridge International A and AS Level components and some Cambridge O Level components.

This document consists of **11** 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.)
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- 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)	State the lowest voltage shock that was labelled on the shock generator. 1 mark for correct answer 15 (volts)	1
1(b)	Describe the shock instructions the participant (teacher) was told to follow when the victim (learner) gave an incorrect answer. 1 mark per correct point made They were told to give a shock to learner each time they gave an incorrect response; This was done by pressing a switch/button They were told to move one switch higher each time/increase by 15 V each time; They were told to say the voltage level; Before giving that shock level;	3
1(c)	Milgram suggested one reason for obedience was the payment to the participant (teacher). Suggest <u>one</u> reason for obedience in this study, other than the payment. 1 mark for a suggestion based on the study e.g. Being in a university; The experimenter's prods; The way the experimenter was dressed; The authority figure;	1

Question	Answer	Marks
2(a)	From the study by Piliavin et al. (subway Samaritans): Outline <u>one</u> aim of the study, other than to test the effect of race on helping behaviour. 2 marks full aim 1 mark brief/partial aim e.g. To investigate bystander behaviour in a realistic setting/where there is a clear view of victim (2 marks); To investigate if a person is more likely to help an ill or drunk victim (2 marks); To investigate bystander behaviour (1 mark); To investigate diffusion of responsibility (1 mark) which states that the more people present in an emergency the less likely they are to help (1 mark); To test the idea of a Good Samaritan (1 mark);	2
2(b)	Describe <u>one</u> result about same-race helping in the cane (ill) condition. 2 marks meaningful comparison 1 mark no comparison e.g. There was a slight tendency for same-race helping in this condition, but it was not a significant result (2 marks) Overall, people were more likely to help an ill victim of their own race compared to a different race (2 marks) White helpers were more likely to help a white victim compared to black helpers (2 marks) Black helpers were less likely to help a black victim compared to white helpers (2 marks) Overall, people helped out same race more often (1 mark)	2
2(c)	Outline <u>two</u> comments made by participants who did <u>not</u> help the victim. 1 mark per comment 'It is for men to help him'; 'I wish I could help him'; 'I am not strong enough'; 'I never saw this kind of thing before'; 'I don't know where to look'; 'You feel so bad when you don't know what to do';	2

Question	Answer	Marks
3(a)	From the study by Laney et al. (false memory): Identify <u>three</u> features of the sample used in Experiment 2 1 mark per correct point made n = 103; Undergraduates; University of Washington; Received course credit (for participation); Majority female; Mean age 20 years; Volunteers;	3
3(b)	Suggest <u>one</u> real-world application based on the results of the study. 1 mark for what the application is about 1 mark for how it will be implemented/used e.g. The false memory procedure could be used with children who are fussy eaters (1 mark: what); they could be led to believe that they actually like healthy food to improve their diets (1 mark: how); Can help children who are obese/have a poor diet (1 mark: what) by letting parents alter their child's diet via a false memory (1 mark: how);	2

Question	Answer	Marks
4(a)	Describe <u>one</u> assumption of the learning approach, using an example other than the study by Pepperberg (parrot learning). 1 mark assumption with no example 2 marks assumption with an example e.g. We learn through conditioning (1 mark). For operant we can get rewarded for being good so we are likely to be good again (1 mark: example); Social Learning helps to explain changes in behaviour (1 mark). We observe and imitate behaviours of aggressive role models and copy that aggression (1 mark: example); We learn through classical conditioning (1 mark); We learn from reinforcement/punishment (1 mark);	2

Question	Answer	Marks
4(b)(i)	Explain how <u>one</u> finding from the study by Pepperberg supports the assumption of the learning approach that you have described in (a). 1 mark for finding 1 mark for linking it to an assumption highlighted in 4(a). If it does not match assumption can still gain 1 mark for a correct result. e.g. Alex scored well above chance on tests for same/different with familiar objects (76.6%) (1 mark: finding). This maybe because he was rewarded (conditioned) during training/testing (1 mark: link); Alex was able to comprehend same/different (1 mark: finding) after observing a teacher and competing using the model/rival technique (1 mark: link); He could imitate words for colour/shape (1 mark: finding); He was taught using the model/rival technique that uses positive reinforcement to motivate (1 mark: link);	2
4(b)(ii)	Explain how <u>one</u> finding from the study by Pepperberg does <u>not</u> support the assumption of the learning approach that you have described in (a). 1 mark for finding 1 mark for explaining why there is no link to an assumption highlighted in 4(a). If it does not match assumption can still gain 1 mark for a correct result. e.g. Alex scored well above chance on tests of same/different with novel objects (82.3%) (1 mark: finding). He had not been conditioned/rewarded to know these differences/was only rewarded <i>after</i> he got the answer correct (so this cannot explain why he was good at these) (1 mark: explain)	2

Question	Answer	Marks
5(a)	From the study by Saavedra and Silverman (button phobia): During diagnosis, the boy did <u>not</u> meet the DSM-IV criteria for one disorder. Name this disorder. 1 mark for correct answer OCD/Obsessive Compulsive Disorder	1
5(b)	Describe the Feelings Thermometer. 1 mark per correct point made A hierarchy of disgust/fear; Nine point scale/0–8; 0 = no distress/8 = very distressed; Used to rate his level of disgust/fear/distress/anxiety;	2

Question	Answer	Marks
5(c)	Outline <u>one</u> strength of this study. 1 mark for identifying the strength 1 mark for relating it to the Saavedra and Silverman study e.g. There was a standardised procedure to the study to aid replicability/ reliability (1 mark); for example, the treatment session lengths were 20 mins for the boy (1 mark); The study could be said to have high ecological validity (1 mark); This is because the therapy sessions were ‘real’, and the activities would happen in real life (1 mark); The study followed the ethical guideline of informed consent (1 mark); as both the mum and boy gave this and knew exactly what the therapy was about (1 mark);	2

Question	Answer	Marks
6	Describe the procedure from the study by Bandura et al. (aggression) from when a participant entered the experimental room until the model began to assemble tinker toys. 1 mark per correct procedural point The participant was taken to one corner of the room; It was a structured play area; The child was seated (at a table); The experimenter demonstrated to the child how to make pictures/potato prints/use stickers; Once the child began ‘playing’, the experimenter took the model to the opposite corner; A variety of objects were located there (e.g. mallet, Bobo etc.); The experimenter explained that these were for the model to play with; The model was seated at their own table; The experimenter then left the room;	5

Question	Answer	Marks
7(a)	From the study by Baron-Cohen et al. (eyes test): Describe the procedure used to select the target words and foils before the main study. 1 mark per correct statement made Piloted on a group of eight judges; At least five from the eight had to agree that the target word was most suitable; No more than two judges had to pick a single foil; Items that failed had new target words generated/was re-piloted with new words;	3

Question	Answer	Marks
7(b)	Group 1 consisted of 15 adults recruited using adverts in a specialist magazine. Identify <u>three</u> other characteristics of Group 1. 1 mark per characteristic (all) male; (diagnosed) with AS/HFA; Mean age of 29.7 (years); Normal range IQ/mean IQ = 115; Same socioeconomic classes as Group 2; Same educational levels as Group 2;	3

Question	Answer	Marks
8(a)	Research has shown that males' brains respond to positive imagery more than females' brains. Explain <u>two</u> ways the study by Canli et al. (brain scans and emotions) differs from this research. 1 mark for identifying a difference 1 mark for describing the element of the study supporting the difference e.g. The participants in the Canli study were not male (1 mark: identifying) as they were all female (1 mark: describing) The Canli study did not investigate positive imagery (1 mark: identifying) as the images ranged from negative to neutral (1 mark: describing) The sample was different (1 mark: identifying) Canli only used females in their study (1 mark: describing)	4

Question	Answer	Marks										
8(b)	Explain <u>one</u> similarity and <u>one</u> difference between the study by Canli et al. (brain scans and emotions) and <u>one</u> other core study from the biological approach. 4 marks available for the similarity 4 marks available for the difference Creditworthy points include: sample/sampling, ethics, quantitative data, brain measurement techniques. There are others. e.g. difference 4 marks Canli used an FMRI scan to be able to see brain activity whilst the participants watched the different emotional scenes. Dement and Kleitman used a different technique called an EEG that could only monitor brain wave activity/patterns during sleep/dreaming. 3 marks Canli used an FMRI scan to be able to see brain activity whilst the participants watched the different emotional scenes. Dement and Kleitman used a different technique called an EEG. 2 marks Canli used an FMRI scan measure brain activity whilst Dement and Kleitman used an EEG. 1 marks Both studies used different techniques to measure brain activity. <table><tr><td>The similarity/difference is well explained using both studies as examples.</td><td>4 marks</td></tr><tr><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>The similarity/difference is brief with an attempt at using at least one study as an example OR The difference is well explained but there is no study evidence.</td><td>2 marks</td></tr><tr><td>The similarity/difference is brief with no attempt at using studies as examples.</td><td>1 mark</td></tr><tr><td>No creditworthy material.</td><td>0 marks</td></tr></table>	The similarity/difference is well explained using both studies as examples.	4 marks	The similarity/difference is well explained but only one study is used as an example OR both studies used briefly.	3 marks	The similarity/difference is brief with an attempt at using at least one study as an example OR The difference is well explained but there is no study evidence.	2 marks	The similarity/difference is brief with no attempt at using studies as examples.	1 mark	No creditworthy material.	0 marks	8
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9	Evaluate the study by Yamamoto et al. (chimpanzee helping) in terms of <u>two</u> strengths and <u>two</u> weaknesses. At least one of your evaluation points <u>must</u> be about the use of quantitative data. Suitable strengths include: quantitative data, internal validity, reliability, ethics Suitable weaknesses include: quantitative data, external validity, 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



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Question	Answer	Marks
1(a)	From the study by Milgram (obedience): State how many participants took part in the study. 1 mark for correct answer 40	1
1(b)	State the highest voltage shock that was labelled on the shock generator. 1 mark for correct answer 450 (volts)	1
1(c)	The participant (teacher) was given a ‘sample shock’. Describe this procedure. 1 mark per correct point made This was always given before the teacher began their role; It was always 45 v; This was done by pressing (third) switch on generator; It was applied to the wrist; Its source was a battery wired to the generator;	3

Question	Answer	Marks
2(a)	From the study by Bandura et al. (aggression): Outline what Bandura et al. meant by ‘imitative verbal aggression’. 1 mark for the imitative part 1 mark for the verbal aggression part e.g. This is when the <u>children/participant</u> copied/imitated/repeated (1 mark) The things that were said by the <u>model/model’s</u> verbal aggression (1 mark)	2
2(b)	Identify <u>two</u> examples that were recorded as imitative verbal aggression. 1 mark per example ‘Sock him’; ‘Hit him (down)’; ‘Kick him’; ‘Throw him (in the air)’; ‘Pow’;	2

Question	Answer	Marks
2(c)	Describe <u>one</u> result about aggressive gun play in the aggressive experimental groups. 2 marks comparison/full result 1 mark no meaningful comparison/brief result e.g. Males showed more aggressive (gun) play compared to females (2 marks) Males showed the most aggressive (gun) play in the aggressive male model condition (2 marks) Girls showed the least aggressive (gun) play when the model was an aggressive female (2 marks) Males showed more aggressive (gun) play (1 mark) Females showed the least amount of aggressive (gun) play (1 mark) <u>More</u> boys than girls showed (gun) play (0 marks as data is about the average and not number of participants).	2

Question	Answer	Marks
3(a)	From the study by Baron-Cohen et al. (eyes test): Identify <u>three</u> features of the sample used for Group 4. 1 mark per correct point made Random sample; General population; N = 14; Not diagnosed with AS/HFA; IQ matched with Group 1/mean IQ = 116; Same age distribution as Group 1/mean age = 28 years;	3
3(b)	Suggest <u>one</u> real-world application based on the results of this study. 1 mark for what the application is about 1 mark for how it will be implemented/used e.g. The eyes test could be used as a diagnostic tool for AS/HFA (1 mark: what) Those who score low on the test may show a lack of theory of mind (1 mark: how) Teachers can use the eyes test to see which students struggle with social interactions (1 mark: how) by giving these students extra lessons to help improve (1 mark: what)	2

Question	Answer	Marks
4(a)	Describe <u>two</u> assumptions of the learning approach, using examples other than the study by Saavedra and Silverman (button phobia). 2 marks assumption with an example (not from Saavedra and Silverman): 1 mark for assumption + 1 mark for the examples 1 mark assumption with no example e.g. We learn through conditioning (1 mark). For operant we can get rewarded for being good so we are likely to be good again (1 mark: example) Social Learning helps to explain changes in behaviour (1 mark) We observe and imitate behaviours of an aggressive role models and copy that aggression (1 mark: example) We learn through classical conditioning (1 mark) We learn from reinforcement/punishment (1 mark)	4
4(b)	Explain how <u>one</u> finding from the study by Saavedra and Silverman (button phobia) supports <u>one</u> of the assumptions of the learning approach that you have described in (a). 1 mark for finding 1 mark for linking it to an assumption highlighted in 4(a). If it does not match assumption can still gain 1 mark for a correct result. e.g. The ratings of distress declined over session time (1 mark: finding) and during these the mother gave positive reinforcement to help shape his behaviour (1 mark: link) by the end of the study the boy could handle buttons (1 mark: finding)	2

Question	Answer	Marks
5(a)	From the study by Dement and Kleitman (sleep and dreams): From the dream-duration estimate part of the study: State how Dement and Kleitman chose whether to wake a participant after 5 minutes or after 15 minutes of REM sleep. 1 mark for correct answer At random/randomly/equal chance of being either.	1

Question	Answer	Marks
5(b)	Describe the dream-duration estimates for the participant DN whose responses did <u>not</u> follow the same pattern as others. 1 mark per correct statement made e.g. DN was equally likely to get the 15 minute estimation right or wrong; He got estimation of 15 minutes correct 50% of the time/5 times; ORA He got estimation of 5 minutes correct 80% of the time/8 times; ORA He often underestimated how long they were dreaming;	2
5(c)	Outline <u>one</u> strength of this study. 1 mark for identifying the strength 1 mark for relating it to Dement & Kleitman e.g. There were controls on some participant/situational variables to aid cause and effect conclusions (1 mark) For example participants were not allowed to drink alcohol/consume caffeine prior to the study (1 mark) There was a standardised procedure to the study to aid replicability/reliability (1 mark) For example participants were not allowed to drink alcohol/consume caffeine prior to the study (1 mark) It was conducted in a laboratory so had good controls that increase (internal) validity (1 mark)	2

Question	Answer	Marks
6	From the study by Laney et al. (false memory): Describe the procedure for Experiment 1 from when the participants returned for Session 2 (approximately one week after Session 1) until they completed the Food History Inventory. 1 mark per correct procedural point made They were given false feedback about Session 1; They were told that their responses had been entered into a computer; It had generated a food profile of early childhood; These were presented as if 'tailored to them'; One part was the same for all participants (don't need to name any to gain the mark)(e.g. you disliked spinach); A critical item about asparagus was given (for Love group); Control group had three filler questions; All had to respond about a 'sweets at school' item; Asked to imagine a setting where this experience might have happened/who were you with?; Then they had to rate how much they felt it affected their adult personality; The experimenter then collected the profiles;	5

Question	Answer	Marks
7(a)	From the study by Pepperberg (parrot learning): The ‘model/rival technique’ was used where one human acted as a trainer. Describe this technique. 1 mark per correct point made The trainer presents objects to a second human/learner; They ask questions about the objects; The model/rival is praised/rewarded the correct answers; They show disapproval for incorrect answers by the model/rival; The second human acts as model for Alex/the bird; And as a rival for the trainer’s attention; The role of model and rival were reversed;	3
7(b)	Describe what the secondary trainer did during the ‘test procedures’. 1 mark per correct point made This trainer would present Alex with an object; These were varied but in a predetermined order; Asked a series of questions like ‘What colour?’ ‘What’s same?’ etc.; (need example question); Alex got rewarded for correct/scolded for incorrect answer; Alex had to vocalise in English; Secondary questions were used to clarify answers (if necessary);	3

Question	Answer	Marks
8(a)	Research in the laboratory has shown that people are more likely to help someone of a different race to themselves. Explain <u>two</u> ways the study by Piliavin et al. (subway Samaritans) differs from this research. 1 mark for identifying a difference 1 mark for describing the element of the study supporting the difference e.g. Piliavin’s study was not in a laboratory/controlled setting (1 mark: identify) as it took place in a subway car in New York (1 mark: describe) The different race helping was not seen as much in Piliavin (1 mark: identify) as people were more likely to help same race victim when <u>drunk</u> (1 mark: describe) 68% of spontaneous helpers of a white victim were white which is higher than racial distribution in the car (1 mark: describe)	4

Question	Answer	Marks										
8(b)	Explain <u>one</u> similarity and <u>one</u> difference between the study by Piliavin et al. (subway Samaritans) and the study by Milgram (obedience). 4 marks available for the similarity, e.g. ethics, situational, controls, quantitative data 4 marks available for the difference, e.g. setting, participants, use of a stooge. Creditworthy points include ethics, situational, controls, quantitative data, setting, participants, use of a stooge. Similarity e.g. 4 marks Both the Piliavin and Milgram studies have ethical issues of deception. In the Milgram study, participants believed they were giving real electric shocks to a 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 Piliavin and Milgram 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 Piliavin and Milgram studies have ethical issues of deception, as in both, participants never knew that the scenarios were fake. e.g. 1 mark Both the Piliavin and Milgram studies had ethical issues. <table><tr><td>The similarity/difference is well explained using both studies as examples.</td><td>4 marks</td></tr><tr><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>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>The similarity/difference is brief with no attempt at using studies as examples.</td><td>1 mark</td></tr><tr><td>No creditworthy material.</td><td>0 marks</td></tr></table>	The similarity/difference is well explained using both studies as examples.	4 marks	The similarity/difference is well explained but only one study is used as an example OR both studies used briefly.	3 marks	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	The similarity/difference is brief with no attempt at using studies as examples.	1 mark	No creditworthy material.	0 marks	8
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Question	Answer	Marks
9	Evaluate the study by Schachter and Singer (two factors in emotion) in terms of <u>two</u> strengths and <u>two</u> weaknesses. At least one of your evaluation points <u>must</u> be about the use of quantitative data. Suitable strengths include: quantitative data, internal validity, reliability Suitable weaknesses include: quantitative data, external validity, 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

9990/13

Paper 1 Approaches, Issues and Debates

May/June 2021

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 May/June 2021 series for most Cambridge IGCSE™, Cambridge International A and AS Level components and some Cambridge O Level components.

This document consists of **11** 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 Saavedra and Silverman about a boy with button phobia: State the age at which the boy's button phobia began. 1 mark for correct answer 5 (years)	1
1(b)	State what happened to the boy's ratings of distress from session 2 to session 4. 1 mark for correct answer They increased/went up/got larger etc.	1
1(c)	Describe the disgust-related exposure sessions. 1 mark per correct point made They explored reasons why he felt buttons were disgusting; Used self-control/cognitive strategies; He had to imagine buttons falling on to him; He had to imagine hugging his mother with buttons on her shirt; He was asked how they looked/felt/smelled; He then was asked to elaborate on how he felt; It progressed from larger to smaller buttons; Cognitive re-structuring was used when necessary;	3

Question	Answer	Marks
2(a)	From the study by Pepperberg (parrot learning): Outline <u>one</u> aim of the study. 2 marks full aim 1 mark partial/brief aim e.g. To test if an avian species can understand the concept of same and different (2 marks); To see if a bird knew same/different (1 mark); To test same and different in a bird (0 marks);	2
2(b)	Describe <u>one</u> result from the tests on familiar objects. You <u>must</u> use data in your answer. 1 mark for the result 1 mark for the use of data Alex's score was 76.6% (99/129) for all trials (2 marks); Alex's score was 69.7% (69/99) on first-trial-only (2 marks); Alex performed well above chance in this test (1 mark); Alex performed worse for familiar than for novel objects (1 mark);	2
2(c)	Outline <u>one</u> ethical guideline that was important for Pepperberg to consider when designing this study. 1 mark for identifying a guideline for the use of animals in research 1 mark for linking it to the study e.g. Housing (1 mark) Pepperberg had to ensure that Alex's cage had enough space for him (1 mark) Numbers (1 mark) Pepperberg only used one parrot/only planned to use one parrot (1 mark)	2

Question	Answer	Marks
3(a)	From the study by Dement and Kleitman (sleep and dreams): Identify <u>three</u> features of the sample used in this study. 1 mark per correct statement made N = 9; Adults; Predominantly male; Five were studied intensely; Four were used to confirm results of main participants;	3

Question	Answer	Marks
3(b)	Suggest <u>one</u> real-world application based on the results of this study. 1 mark for what the application is about 1 mark for how it will be implemented/used e.g. The EEG readings could be used to help people with sleep disorders (1 mark: what); Readings could be analysed to see how much time people are in REM/NREM (1 mark: how) Could help with the study of sleep disorders/insomnia (1 mark: what)	2

Question	Answer	Marks
4(a)	Describe <u>two</u> assumptions of the cognitive approach. 2 marks full assumption 1 mark brief assumption e.g. Behaviour and emotions can be explained in terms of the role of thinking (cognitive) processes like attention, memory and language (2 marks) Behaviour can be explained in terms of processes like memory/language (1 mark) Similarities and differences between people can be understood via cognitions. These can be the way we process information/the way we store information (2 marks) Similarities/differences between people can be understood via cognitions (1 mark)	4
4(b)	Explain how <u>one</u> finding from the study by Andrade (doodling) supports <u>one</u> of the assumptions of the cognitive approach that you have described in (a). 1 mark for finding 1 mark for linking it to an assumption highlighted in 4(a). If it does not match assumption can still gain 1 mark for a correct result. e.g. The doodling group performed better on the monitoring task (compared to the control) (1 mark: finding). This shows that differences between the groups can be explained by cognitions/thinking processes, in this case, they were dual processing information (1 mark: link); doodling allowed access to optimal levels of cognitive processing/reduced daydreaming (alternative 1 mark: link)	2

Question	Answer	Marks
5(a)	From the study by Yamamoto et al. (chimpanzee helping): Identify <u>one</u> object that a chimpanzee could have chosen, other than the stick or straw. 1 mark for the correct answer Hose; Chain; Rope; (Paint) Brush; Belt;	1
5(b)	Describe the result from the chimpanzee Pan in the first ‘Can See’ condition. You <u>must</u> data in your answer. 1 mark for the result 1 mark for using correct data e.g. Pan did not offer a potential tool significantly more than a nontool (1 mark: result); she offered the brush 79.5% on first trial attempts (1 mark: data)	2
5(c)	Outline <u>one</u> strength of this study. 1 mark for identifying the strength 1 mark for relating it to Yamamoto e.g. The procedure was standardised so could be replicated/tested for reliability (1 mark strength). For example, the same seven tools were always used in every trial (1 mark relating) All of the trials were video recorded so could be replayed to check for accuracy (1 mark relating). Therefore, the results should be valid and free from any bias (1 mark strength)	2

Question	Answer	Marks
6	Describe the procedure of Experiment 2 in the study by Laney et al. (false memory) from when the participants began viewing slides of food until the end of the study. 1 mark per correct procedural point They completed four ratings for each slide; These were of common foods (don't need to mention any to gain credit); Each slide was displayed for 30s; They rated how appetizing/disgusting they felt the food was; They also rated experience of photographer/artistic quality of photo; Ratings were on an 8 point scale/rated from 1-8; They then completed RQ/FPQ/FHI (for a second time); They also completed a Memory or Belief? Questionnaire; They were then debriefed about the study;	5

Question	Answer	Marks
7(a)	From the study by Milgram (obedience): Identify <u>three</u> features of the experimenter in this study. 1 mark per correct point made Male; High school teacher (of Biology); Early thirties; Manner was impassive; Appearance was stern; Dressed in (Grey) technician's coat; Provided prods to continue the study (if the participant wanted to stop);	3
7(b)	At the start of the study, participants were told that 'we know very little about the effect of punishment on learning'. Describe what else each participant was told before they were assigned to the role of teacher. 1 mark per correct point made. This is because almost no scientific studies have been conducted (on human beings); We don't know how much punishment is best for learning; We also don't know how much difference it makes as to who is giving the punishment; So in this study we are bringing together people from different occupations (to test this out); Some of them will be teachers and some will be learners; We want to know what effect different people have on each other as teachers and learners; And also what effect punishment will have on learning in this situation;	3

Question	Answer	Marks
8(a)	Research has shown that children who watch violent television programmes are less likely to be aggressive. Explain <u>two</u> ways the study by Bandura et al. (aggression) differs from this research. 1 mark for identifying a difference 1 mark for describing the element of the study supporting the difference e.g. The children did not watch a violent television programme (1 mark: identify) as they watched a live model being aggressive in a room (1 mark: describe) The children did not become less aggressive in Bandura (1 mark: identify) they became more aggressive especially with a same sex aggressive model (1 mark: describe)	4

Question	Answer	Marks										
8(b)	Explain <u>one</u> similarity and one difference between the study by Bandura et al. (aggression) and one other core study from the learning approach. 4 marks available for the similarity 4 marks available for the difference Creditworthy points include: modelling, quantitative data, case study, ethics, species, sample size, type of conditioning. Difference: e.g. 4 marks The study of Pepperberg and Bandura used different species as the participant(s). The Pepperberg study used one African Grey Parrot (Alex). However, the Bandura study used (72) nursery children from a university nursery. e.g. 3 marks The study of Pepperberg and Bandura used different species as the participant(s). The Pepperberg study used one African Grey Parrot (Alex). e.g. 2 marks The study of Pepperberg and Bandura used different species as the participant(s) namely a bird and children. e.g. 1 mark The studies of Pepperberg and Bandura used different species. <table><tr><td>The similarity/difference is well explained using both studies as examples.</td><td>4 marks</td></tr><tr><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>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>The similarity/difference is brief with no attempt at using studies as examples.</td><td>1 mark</td></tr><tr><td>No creditworthy material.</td><td>0 marks</td></tr></table>	The similarity/difference is well explained using both studies as examples.	4 marks	The similarity/difference is well explained but only one study is used as an example OR both studies used briefly.	3 marks	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	The similarity/difference is brief with no attempt at using studies as examples.	1 mark	No creditworthy material.	0 marks	8
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