Cambridge Assessment International Education

Cambridge International AS & A Level

PSYCHOLOGY **9990/12**

Paper 1 Approaches, Issues & Debates **October/November 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 October/November 2021 series for most Cambridge IGCSE™, Cambridge International A and AS Level components and some Cambridge O Level components.

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[Turn over

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.

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Social Science-Specific Marking Principles
(for point-based marking)

1 Components using point-based marking:

- Point marking is often used to reward knowledge, understanding and application of skills. We give credit where the candidate's answer shows relevant knowledge, understanding and application of skills in answering the question. We do not give credit where the answer shows confusion.

From this it follows that we:

a DO credit answers which are worded differently from the mark scheme if they clearly convey the same meaning (unless the mark scheme requires a specific term)
b DO credit alternative answers/examples which are not written in the mark scheme if they are correct
c DO credit answers where candidates give more than one correct answer in one prompt/numbered/scaffolded space where extended writing is required rather than list-type answers. For example, questions that require *n* reasons (e.g. State two reasons …).
d DO NOT credit answers simply for using a 'key term' unless that is all that is required. (Check for evidence it is understood and not used wrongly.)
e DO NOT credit answers which are obviously self-contradicting or trying to cover all possibilities
f DO NOT give further credit for what is effectively repetition of a correct point already credited unless the language itself is being tested. This applies equally to 'mirror statements' (i.e. polluted/not polluted).
g DO NOT require spellings to be correct, unless this is part of the test. However spellings of syllabus terms must allow for clear and unambiguous separation from other syllabus terms with which they may be confused (e.g. Corrasion/Corrosion)

2 Presentation of mark scheme:

- Slashes (/) or the word 'or' separate alternative ways of making the same point.
- Semi colons (;) bullet points (•) or figures in brackets (1) separate different points.
- Content in the answer column in brackets is for examiner information/context to clarify the marking but is not required to earn the mark (except Accounting syllabuses where they indicate negative numbers).

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.

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Question	Answer	Marks
1(a)	**From the study by Saavedra and Silverman about a boy with a button phobia:** **State who provided the boy with positive reinforcement during the Behavioural Exposures stage of his therapy.** 1 mark for the correct answer His mum/mother.	**1**
1(b)	**Name <u>two</u> stimuli that were rated 4 or lower on the boy's Disgust/Fear Hierarchy.** 1 mark per correct stimuli Large denim jean buttons; Small denim jean buttons; Clip-on denim jean buttons; Coloured large plastic buttons; Clear large plastic buttons.	**2**
1(c)	**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 (2 marks); Imagery exposure can have a positive long-term effect on reducing distress linked to phobias (2 marks); A phobia can be treated with positive reinforcement and imagery / behaviour exposure (2 marks); People can be successfully treated for phobias (1 mark); The boy could begin to wear the buttons on his uniform (0 marks: result)	**2**

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Question	Answer	Marks
2(a)	**From the study by Pepperberg (parrot learning):** **Describe the psychology being investigated in this study**. 1 mark per correct statement made. e.g. Social Learning is when someone observes the behaviour of someone else / pay attention to behaviour; They retain this information for use at a later date; The organism/person/animal must feel capable of replicating that behaviour; The need to be motivated via vicarious reinforcement; Operant conditioning is when an animal/person learns by the consequences of its behaviour; If a behaviour is followed by a reward they are more likely to repeat; If a behaviour is followed by punishment then they are less likely to repeat; Looked at the cognitive skill of distinguishing same and different; There are other creditworthy responses.	**3**
2(b)	**Outline <u>one</u> strength of this study in relation to validity.** 1 mark for identifying a strength; 1 mark for linking it to Pepperberg e.g. Researcher bias was limited (1 mark). For example, the principal trainer on the test trials had not trained Alex at all (1 mark: link); There were a number of controls, for example, the objects used in training/ trials (1 mark: link). Therefore, it was easier to establish cause and effect (1 mark); The procedure was standardised (0 marks: reliability);	**2**

Question	Answer	Marks
3(a)	**Before the study by Canli et al. (brain scans and emotions), other psychologists had found a relationship between amygdala activation and memory.** **Canli et al. reported three alternative reasons for this relationship, other than amygdala activation causing the formation of memories.** **Outline <u>two</u> of these alternative reasons**. 2 marks full/detailed reason given; 1 mark brief reason given e.g. 2 marks Some individuals are just more responsive to emotional experiences than others in terms of personality type; Some individuals when being brain scanned experience enhanced emotional experiences / respond more to emotional stimuli; The amygdala is dynamic in the way it responds to emotional experiences on an individual level e.g. 1 marks Individuals differ when it comes to emotions; People's personalities affect emotions; Brain scanning makes some people emotional;	**4**
3(b)	**Describe the correlation between participants' intensity ratings and valence ratings.** 1 mark available for identifying the type of correlation; 1 mark per correct description of correlation/direction of scores e.g. Negative correlation (1 mark); As one score went up the other went down (1 mark), so as the intensity rating increased, the valence rating decreased (1 mark)	**2**

Question	Answer	Marks
4(a)	**From the study by Yamamoto et al. (chimpanzee helping):** **Describe the familiarisation phase of this study.** 1 mark for every correct statement made There were eight trials per chimpanzee; Each lasted for 5 minutes; Only one trial per day / spread over eight days; Were allowed to freely manipulate any tool; No tool use situation was created for them.	**3**

Question	Answer	Marks
4(b)	**Outline the <u>two</u> possible outcomes that ended a trial.** 1 mark per correct outcome ×2 Recipient (chimpanzee) succeeded in getting the juice reward; When 5 minutes had passed without appropriate tool transfer.	**2**
4(c)	**Identify <u>one</u> methodological weakness of this study**. 1 mark for the identification e.g. **Lacks** ecological validity (1 mark) Ecological validity / not a natural setting (0 marks) **Lacks** generalisability (1 mark) Generalisability / sample size (0 marks) Used repeated measures that could have cause practice effect (1 mark) There are other creditworthy responses.	**1**

Question	Answer	Marks
5(a)	**From the study by Schachter and Singer (two factors in emotion): Identify two features of the sample used in this study.** 1 mark per feature: (predominantly) volunteers; n = 184; Males; Taking introductory psychology class; University of Minnesota; Students/undergraduates; Gained course credit (for participation).	**2**

Question	Answer	Marks
5(b)	**One of the questions that the participants were asked about their mood was 'How good or happy would you say you feel at present?'** **Explain <u>one</u> reason why this question may not measure mood accurately.** 1 mark for a problem 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 said they were happy or good does not mean that is what they actually felt (1 mark) It is a subjective measure (1 mark); participants will interpret happy/good in different ways (1 mark); It is a subjective measure (1 mark); Only a transient measure / less valid (1 mark); There are other creditworthy responses.	**2**

Question	Answer	Marks
6(a)	**The study by Baron-Cohen et al. (eyes test) is based on Theory of Mind.** **Describe what is meant by 'Theory of Mind'.** 1 mark per point about Theory of Mind 1 mark can be awarded for an appropriate example or part of the procedure of a study (e.g. Eyes Test, Sally-Anne Test or that people with AS/HFA lack ToM) that is used as an elaboration. This refers to our ability to attribute mental states to ourselves and others; These can be desires, emotions etc.; It is linked to empathy which is the ability to understand how other people are feeling/thinking; This can be done by imagining what the other person is feeling/thinking / putting ourselves in the shoes of others; It is also about how we use this knowledge to explain the actions of other people; It is also about how we use this knowledge to predict the actions of others; We use this knowledge to understand that people may have different ideas and hold different emotions to us; It can be tested using the Eyes Test where people have to judge the emotions of others' by looking at eyes only (example mark)	**4**

Question	Answer	Marks
6(b)	**Suggest <u>one</u> real-world application based on the procedure 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 can be used to help diagnose autism as people who score low on the test have difficulty processing emotions of others' (2 marks: what and how); The Eyes Test can be used to help diagnose autism (1 mark: what);	**2**

Question	Answer	Marks
7(a)	**Jamie has learned about the study by Milgram (obedience). He believes that the study is unethical.** **Outline what is meant by the ethical guideline of 'informed consent'.** 2 marks for a full answer 1 mark for brief/partial answer e.g. This is when a participant is given enough information before a study begins so they can decide whether they would like to participate (or not) (2 marks); This is when a person decides if they want to take part in a study (1 mark); Telling participants information about the study before it starts (1 mark);	**2**
7(b)	**Outline why Jamie is correct that this study is unethical, using evidence in your answer.** Up to 1 mark for outlining one ethical guideline directly relevant to Milgram Up to 4 marks for using evidence to show that Milgram was unethical e.g. The participants were deceived about the procedure (1 mark outline); They did not know that they were not giving electric shocks to a learner (1 mark evidence); Many showed signs of anxiety and stress when giving the shocks so were psychologically harmed (1 mark evidence); They were given prods if they wanted to stop so they were not really allowed to withdraw (1 mark evidence); There are other creditworthy responses.	**4**

Question	Answer	Marks
8(a)	**Outline the debate about individual and situational explanations in psychology, using an example from the study by Dement and Kleitman (sleep and dreams).** 1 mark = defining individual + 1 mark example (from Dement and Kleitman) 1 mark = defining situational + 1 mark example (from Dement and Kleitman) e.g. The individual explanation states that we behave because of our personality (1 mark). For example, the participants had different success at estimating dream duration (1 mark D+K); The situational explanation states that we behaviour because of the environment we find ourselves in (1 mark). For example, being in the laboratory may have caused some of the strange dreams (1 mark D+K); There are other creditworthy responses.	**4**

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>8(b)</td><td>
Explain what psychologists have learned about sleep and dreams using two results from the study by Dement and Kleitman. Do not refer to the debate about the individual and situational explanations in your answer.

e.g.
People tend to dream more in REM sleep compared to NREM sleep;
Direction of eye movement in REM relates to dream content so it is not random;
People may well dream in ‘real time’;

<table>
<tr><th>Level</th><th>Criteria</th><th>Marks</th></tr>
<tr><td>4</td><td>The result presented has a meaningful comparison and the candidate clearly explains what we have learned about the named concept</td><td>4</td></tr>
<tr><td>3</td><td>The result presented has a meaningful comparison and there is a brief attempt at explaining what we have learned about the named concept;
The result presented has no meaningful comparison but the candidate clearly explains what we have learned about the named concept</td><td>3</td></tr>
<tr><td>2</td><td>The result presented has a meaningful comparison but there is no attempt at explanation;
The result presented is not clear or no result but there is an attempt at explaining what we have learned about the named concept</td><td>2</td></tr>
<tr><td>1</td><td>The result presented has no meaningful comparison or there is a basic attempt at explaining</td><td>1</td></tr>
<tr><td>0</td><td>No creditworthy answer</td><td>0</td></tr>
</table>

e.g.
Level 4: People tend to dream more in REM sleep than they do in NREM sleep. Around 80% of dreams were recalled when woken in REM compared to 7% when woken in NREM;
Direction of eye movement in REM relates to dream content so it is not random. Vertical movement was linked to playing basketball whilst horizontal movement was linked to throwing tomatoes;

Level 3: People tend to dream more in REM sleep. Around 80% of dreams were recalled when woken in REM compared to 7% when woken in NREM;
Direction of eye movement in REM relates to dream content. Vertical movement was linked to playing basketball whilst horizontal movement was linked to throwing tomatoes;
</td><td>8</td></tr>
</table>

Question	Answer	Marks
8(b)	Level 2: Around 80% of dreams were recalled when woken in REM compared to 7% when woken in NREM; Direction of eye movement in REM relates to dream content so it is not random; Level 1: People tend to dream more in REM sleep; One participant dreamt about throwing tomatoes;	

Question	Answer	Marks
(9)	**Evaluate the study by Bandura et al. (aggression) in terms of <u>two</u> strengths and <u>two</u> weaknesses. At least <u>one</u> of your evaluation points must be about the use of quantitative data.** Suitable strengths = reliability (standardisation), quantitative data, validity; children showing less demand characgteristics Suitable weaknesses = ecological validity, ethics, generalisability, quantitative data **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**