Cambridge International AS & A Level

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PSYCHOLOGY **9990/13**

Paper 1 Approaches, issues and debates **May/June 2018**

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 2018 series for most Cambridge IGCSE™, Cambridge International A and AS Level and Cambridge Pre-U components, and some Cambridge O Level components.

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.

Question	Answer	Marks
1(a)	**From the study by Pepperberg (parrot learning):** **State the aim of this study.** 1 mark for the correct aim. To investigate if a parrot could understand the concept of same/different	**1**
1(b)	**Three categories were used when training Alex the parrot. The first was colour and the second was shape.** **What was the third category?** 1 mark for the correct answer. Matter/'mah-mah'	**1**
1(c)	**Outline <u>one</u> result about the performance of Alex the parrot from the 'probes' questions.** Alex performed well above chance in this test (1 mark) Alex scored 55/61 (90.2%) accuracy on all trials (2 marks) Alex scored 49/55 (89.1%) on first-trials only (2 marks)	**2**

Question	Answer	Marks
2(a)	**The study by Laney et al. used adult participants in Experiment 1.** **Identify <u>two</u> other features of this sample.** 1 mark per feature 128 participants undergraduates (all) from University of California Mostly (77%) female/males **and** females Mean age of around 20/21 years	**2**
2(b)	**Outline <u>one</u> methodological problem that could arise if children were used as participants in this study.** 1 mark – partial answer that is methodological 2 marks – full/detailed answer that is methodological *and* linked to study e.g. The questionnaires used (potentially) had terminology on that a child may find difficult to comprehend, for example sautéed asparagus (2 marks) The children may find the questionnaire difficult to understand (1 mark) The aim of the study was about a childhood memory before the age of 10; this would not be possible if children were used (2 marks)	**2**

Question	Answer	Marks
3(a)	**The study by Canli et al. (brain scans and emotions) used a procedure with participants in an fMRI (functional magnetic resonance imaging) scanner.** **Describe the presentation of the images in the scanner.** 1 mark per correct point made. There were 96 images presented/48 foils; They were presented for around 2–3 s; They had to view them the entire time; They were presented through a mirror/projector; There was a 12–13 s gap between each image	**3**
3(b)	**Identify <u>one</u> other control used in the scanner, other than the way the images were presented.** 1 mark for the identification of an appropriate control as used in the scanner. The scans took place as the participant looked at the picture(s); Had to focus on a fixation cross; Head movement was minimised via a bite-bar;	**1**

Question	Answer	Marks
4	**In the study by Yamamoto et al., the first test was called the 'First "Can See" Condition'.** **Describe the results of the performance from both Cleo and Pan in this condition.** 2 marks for Cleo 2 marks for Pan *Cleo* She offered the stick/straw more frequently than any other tool (2 marks). She offered the stick/straw more frequently. This happened on 97.4% of occasions/trials (2 marks) She offered the stick/straw more frequently (1 mark) *Pan* She offered the brush most frequently than any other tool (2 marks). She offered the brush most frequently. This happened 79.5% of occasions/trials (2 mark) She offered the brush most frequently (1 mark)	**4**

Question	Answer	Marks
5(a)	**The study by Baron-Cohen et al. is based on the concept of '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 or Sally-Anne Test) 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 also about how we use this knowledge to explain the actions of other people/understand others 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;	**4**
5(b)	**Outline how <u>one</u> result from this study supports the concept of 'Theory of Mind'.** 1 mark for any result that is Theory of Mind 1 mark for stating how it supports the idea of Theory of Mind e.g. most likely: The AS/HFA group had the lowest mean score of any of the groups (1 mark). This means they had the most difficulty assigning emotions/mental state to another person (as predicted by ToM) (1 mark)	**2**

Question	Answer	Marks
6(a)	**At the start of the procedure of the study by Milgram (obedience), the participant and the stooge were apparently randomly allocated to the roles of teacher or learner. Later the paired-associate learning task began.** **Describe the procedure <u>between</u> these two events.** 1 mark per point made. The learner was strapped to an 'electric chair' apparatus; The 'electric chair' apparatus was in a separate room; The experimenter explained that the straps were to prevent excessive movement; An electrode was attached to learner's wrist with paste (to avoid blistering); They were told the electrode was attached to a shock generator; They were told that a shock would be painful but not cause permanent damage; The 'teacher'/naïve participant was given a sample shock/45 volts This was always from the third button on the shock generator	**5**

Question	Answer	Marks
6(b)	**Explain <u>one</u> reason why the procedure was standardised in the study by Milgram.** It would allow the study to be more easily replicated (1 mark) Therefore, it could be tested for reliability (1 mark) For example knowing that the sample shock was 45 V means exact replication is possible (1 mark) It would increase the (internal) validity of the study (1 mark) Therefore, cause and effect are (more) likely to be seen (1 mark) For example knowing it was authority figure/prods causing obedience (levels) (1 mark)	**3**

Question	Answer	Marks
7(a)	**Outline <u>one</u> assumption of the learning approach, including any example in your answer.** 1 mark for the assumption 1 mark for the example e.g. Social Learning helps to explain changes in behaviour (1 mark). People may then copy behaviours seen on TV adverts (1 mark) *or* the children in the Bandura *et al.* study copied the attacks on the Bobo doll (alternative 1 mark). We learn through the consequences of our behaviour (1 mark). (Operant conditioning suggests) if we are rewarded for an action we are likely to repeat it (alternative first mark) so giving a sweet to a child after they have tidied their bedroom means they are more likely to repeat the tidying behaviour (1 mark) We learn through association (1 mark). (Classical conditioning suggests) we associate two stimuli together to produce a learned response (alternative first mark) so a cat can associate the sound of a cupboard opening with food (1 mark).	**2**

Question	Answer	Marks
7(b)	**Studies from the learning approach can help with real-world applications.** **Describe how the results of the study by Saavedra and Silverman (button phobia) can help with understanding and/or treating phobias.** 2 marks for the results 2 marks for applying it to the scenario e.g. The boy revealed that during an art class a bowl of buttons fell on him as he tried to get some (1 mark). Therefore, a therapist may need to investigate/ discover a situation when the person first came into contact with their phobic stimulus to (potentially) unearth the cause (1 mark) After just four sessions of the mother providing positive reinforcement the boy could cope with his worst button fears (1 mark). Therefore, for children with phobias having a parent involved in the therapy might bring about faster positive outcomes (1 mark)	**4**
7(c)	**Outline <u>one</u> other real-world application based on the findings from the Saavedra and Silverman study.** 1 mark – partial answer or no indication of who will benefit 2 marks – full answer which includes who will benefit e.g. The boy's disgust/fear (for buttons) was found out using a Feelings Thermometer (rated on a scale of 0–8) (1 mark). This might be useful for schools to use with students who show fear (or use it for anger) to help understand what is causing the fear (or anger) in a child at school (1 mark)	**2**

Question	Answer	Marks
8(a)	**Describe the materials that were used in <u>both</u> the 'doodling' condition <u>and</u> the 'control' condition in the study by Andrade.** 1 mark for each 'common' material noted. Mock telephone message recorded (on audio cassette); The message was at a rate of 227 words per minute; Played at a comfortable listening volume; The script had eight names of those attending the party; There were names of three people (and one cat) who could not attend; Eight place names were mentioned; A piece of paper *and* a pencil.	**4**

Question	Answer	Marks
8(b)	**Explain <u>one</u> similarity and <u>one</u> difference between the Andrade study and <u>one</u> other core 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) The other study can only be Laney et al. or Baron-Cohen et al. **Level 4 (4 marks)** • The candidate has explained one similarity/difference between the Andrade study and one other cognitive study. • Accurate knowledge and understanding is applied. • There is a clear line of reasoning which is logically structured and thoroughly evaluated. **Level 3 (3 marks)** • The candidate has given one similarity/difference between the Andrade study and one other cognitive study. • Knowledge and understanding is applied. • There is evidence of some structured reasoning and some evaluation. **Level 2 (2 marks)** • The candidate has given one similarity/difference between the Andrade study and one other cognitive study. • Some evidence that knowledge and understanding is applied but this may be limited. • There is evidence of some reasoning with limited evaluation. **Level 1 (1 mark)** • The candidate has given one similarity/difference between the Andrade study and one other cognitive study. **OR** • The candidate has given one point that is basic. **Level 0 (0 marks)** No response worthy of credit.	**8**

Question	Answer	Marks
9	**Evaluate the Schachter and Singer study (two factors in emotion) in terms of <u>two</u> strengths and <u>two</u> weaknesses. At least <u>one</u> of your evaluation points <u>must</u> be about the use of independent measures.** Example of evaluation in context: The study breaks the ethical guideline of no deception. The participants believed that they were being given a vitamin injection called Suproxin – it was in fact epinephrine. They also believed that the stooge was another real participant. Therefore, the participants were deceived at least twice in the study. Other aspects that can be used for evaluation include: use of quantitative data, ethics (positive and negative), usefulness, use of qualitative data, reliability etc. These can be used as one strength and/or one weakness. **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**