Cambridge International AS & A Level

Cambridge Assessment International Education
Cambridge International Advanced Subsidiary and Advanced Level

PSYCHOLOGY **9990/13**

Paper 1 Approaches, Issues and Debates **October/November 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 October/November 2018 series for most Cambridge IGCSE™, Cambridge International A and AS Level components and some Cambridge O Level components.

© UCLES 2018

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.

© UCLES 2018

Question	Answer	Marks
1(a)	**From the Dement and Kleitman study (sleep and dreams):** **In which phase of sleep did participants recall most of their dreams?** 1 mark for correct answer REM/Rapid Eye Movement/Paradoxical sleep	**1**
1(b)	**An EEG (electroencephalogram) was used in this study.** **What does an EEG measure?** 1 mark for correct answer Brain waves; Brain activity; Voltage	**1**
1(c)	**Outline <u>one</u> conclusion from this study about the relationship between eye movements and dreaming.** 1 mark – partial answer, 2 marks – detailed/full answer e.g. eye movements appear to correspond to the content of a dream (1 mark); This suggests that eye movements are not purely random but are related to dream imagery (1 mark)	**2**

© UCLES 2018

Question	Answer	Marks
2(a)(i)	**From the Andrade study (doodling):** **Identify <u>two</u> features of the sample used in this study.** 1 mark per feature x2 e.g. Aged 18–55 years; 18 females (2 males) in control; 17 females (3 males) in doodling; 35 females (5 males); All from MRC Applied Psychology Unit/Cognition and Brain Sciences Unit	**2**
2(a)(ii)	**State how the participants were allocated to conditions in this study.** 1 mark for the allocation e.g. Allocated to either condition *randomly*; Had an equal chance of being chosen for either condition/doodling v non-doodling	**1**
2(b)	**Identify <u>one</u> strength of this study.** 1 mark for a relevant strength e.g. Experimental so easier to replicate; Experimental so cause-effect relationship found/studied; Quantitative data collected so comparisons easier	**1**

© UCLES 2018

Question	Answer	Marks
3	**Describe the shock generator that was used in the Milgram study (obedience).** 1 for each correct point x4 It consisted of 30 lever switches/buttons; Each switch was clearly labelled with a voltage; The volts ranged from 15 V to 450 V; Each button went up by 15 V levels; Verbal designations for groups of four voltage levels; Last two were labelled (simply) XXX; Upon depressing a switch a red light appeared; An electric buzzing was emitted; A blue light labelled voltage energizer would light up; Labelled Slight Shock to XXX	**4**

Question	Answer	Marks
4(a)	**Describe <u>one</u> result from the Food History Inventory in Experiment 1 of the Laney et al. study (false memory).** 1 mark – partial answer, 1 mark – full answer e.g. The mean ratings for the *Love* group increased after manipulation (1 mark). It increased by (an average) of 2.6 points (indicating an increase in confidence) (1 mark) The mean ratings for the *Control* group remained (roughly) the same after manipulation (1 mark). It increased by (an average) of just 0.2 points (indicating no increase in confidence) (1 mark) The critical item score was the same for both groups pre-manipulation (1 mark). However, at post-manipulation the *Love* group had increased significantly more than the *Control* group (1 mark).	**2**

© UCLES 2018

Question	Answer	Marks
4(b)	**Explain <u>one</u> real world application of the result you described in part <u>(a)</u>.** 1 mark – partial answer, 1 mark – full answer e.g. The results are useful for children who could be seen as fussy eaters (1 mark); a parent/health worker could use the same manipulation like 'you have always loved fruit' to help children change their views on food (1 mark).	**2**

Question	Answer	Marks
5	**Describe the psychology that was being investigated in the Saavedra and Silverman study (button phobia).** 1 mark per correct point x4 e.g. Investigated evaluative learning/classical conditioning (identification mark); A person comes to perceive (evaluate) a previously neutral object or an event negatively. The person negatively evaluates the object/event *without* anticipating any threat/danger. This negative evaluation elicits a feeling of disgust rather than fear. Differs from Classical Conditioning as the person is being cognitively active by *thinking about disgust and consequences* rather than being a passive organism (2 marks)	**4**

© UCLES 2018

Question	Answer	Marks
6(a)	**Describe <u>two</u> assumptions of the cognitive approach.** 1 mark – partial answer, 2 marks – full answer x2 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) e.g. 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**
6(b)	**Explain how <u>one</u> finding from the Baron-Cohen et al. study (eyes test) supports <u>one</u> of the assumptions of the cognitive approach that you have described in part <u>(a)</u>.** 1 mark – partial answer, 2 marks – full answer e.g. The AS/HFA group scored significantly lower on the Eyes Test (compared to the other three groups) (1 mark) This shows that differences between the groups can be explained by cognitions/thinking processes, in this case, Theory of Mind (1 mark) The AS/HFA group scored significantly lower on the Eyes Test (compared to the other three groups) (1 mark) This clearly shows that differences between people can be explained by how they process information/via cognitions (1 mark)	**2**

© UCLES 2018

Question	Answer	Marks
7(a)	**From the study by Canli et al. (brain scans and emotions):** **Identify the sampling technique used in this study.** 1 mark for correct answer Volunteer/self-selected	**1**
7(b)(i)	**Only females were used in this study.** **Identify <u>one</u> feature of the sample, other than gender.** 1 mark for one other feature e.g. (All) right handed (All) healthy	**1**
7(b)(ii)	**Outline why only females were used as participants.** 1 mark – partial answer, 2 marks – full answer e.g. (Females) are more likely to report intense emotional experiences/males less likely (1 mark); so are therefore more likely to be affected by the imagery (1 mark)/more likely to express their true emotion (1 mark). (Females) are more likely to show more physiological reactivity (in conjunction with valence judgements)/males less likely (1 mark)	**2**
7(c)	**Outline <u>one</u> strength of the sampling technique as used in this study.** 1 mark for strength, 1 mark for linking it to the study Volunteers tend to be more motivated and therefore are less likely to drop out of the study (1 mark). Therefore, the participants were more likely to agree to the brain scan/looking at 'disturbing' imagery (1 mark) As they were volunteers there was no issue around giving informed consent (1 mark).	**2**

© UCLES 2018

Question	Answer	Marks
8(a)	**Two friends, Jon and Crystal, are discussing the Bandura et al. study (aggression) in terms of the nature versus nurture debate.** **Outline the nature versus nurture debate in psychology.** 1 mark for nature side of the debate, 1 mark for nurture side of the debate e.g. The nature side of the debate refers to aspects of us that are biological/innate/born with The nurture side of the debate refers to aspects of us that are environmental/learnt/developed from birth	**2**
8(b)	**Crystal believes the Bandura et al. study supports the nature side of the debate but Jon believes it supports the nurture side of the debate.** **Outline why you think <u>either</u> Jon <u>or</u> Crystal is correct, using evidence from the study.** 1 mark per point made x4 e.g. Jon The boys were more likely to imitate the physical aggression they had only seen from a model (1 mark). This shows that they have learnt the aggressive behaviour from observing the role model (1 mark) e.g. Crystal The boys were more likely to imitate physical aggression (compared to the girls) (1 mark). This shows that boys are 'born' more aggressive as they are naturally more aggressive (1 mark)	**4**

© UCLES 2018

Question	Answer	Marks
9(a)(i)	**From the study by Pepperberg (parrot learning):** **Give <u>one</u> question that Alex the parrot was asked in the study.** 1 mark for correct answer e.g. What's same? What's different?	**1**
9(a)(ii)	**In order to give a correct answer when asked a question, it was assumed that Alex would have to process the information in four steps. The fourth step would be to produce a vocal response of a category.** **Outline the first <u>three</u> steps.** 1 mark per correct step x3 Attend to multiple aspects of two different objects; From the vocal question determine whether the response is based on sameness (or difference); Work out *what* was same or different;	**3**

© UCLES 2018

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>9(b)</td><td>

Explain how the study by Pepperberg met <u>two</u> ethical guidelines for working with animals. Include examples from the study in your answer.

e.g. ‘ethical’ guidelines
Pepperberg only used one parrot in the study so they did use the least amount of animals possible. The study still accomplished its goals with only one parrot.
Rewards were used appropriately and Alex was *not* deprived of food/treats if he answered incorrectly. He would be given extra food if he requested it.

Alex was placed in his usual cage during ‘sleeping hours’ which was ‘normal for him. He was never placed in an unusual situation/situation he was not used to during the study.

<table>
<tr><th>Level</th><th>Criteria</th><th>Marks</th></tr>
<tr><td>4</td><td>The ethical guideline is clearly outlined and there is a clear explanation as to how Pepperberg met that ethical guideline</td><td>4</td></tr>
<tr><td>3</td><td>The ethical guideline is clearly outlined and there is a brief explanation as to how Pepperberg met that ethical guideline; The ethical guideline is briefly outlined (or just named) but there is a clear explanation as to how Pepperberg met that ethical guideline</td><td>3</td></tr>
<tr><td>2</td><td>The ethical guideline is clearly outlined but there is a no explanation as to how Pepperberg met that ethical guideline;
The ethical guideline is not clear but there is an implicit attempt at explaining how Pepperberg met that ethical guideline</td><td>2</td></tr>
<tr><td>1</td><td>The ethical guideline is identified or there is a basic attempt at explaining how Pepperberg ensured the study was ethical</td><td>1</td></tr>
<tr><td>0</td><td>No creditworthy answer</td><td>0</td></tr>
</table>

</td><td>**8**</td></tr>
</table>

Question	Answer	Marks
10	**Evaluate the Piliavin et al. study in terms of <u>two</u> strengths and <u>two</u> weaknesses. At least one of your evaluation points <u>must</u> be about field experiments.** Strengths include: ecological validity, replicability, quantitative data, qualitative data Weaknesses include: ethics, qualitative data, quantitative data, controls **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**

© UCLES 2018