CAMBRIDGE INTERNATIONAL EXAMINATIONS

GCE Advanced Subsidiary Level and GCE Advanced Level

MARK SCHEME for the May/June 2013 series

9698 PSYCHOLOGY

9698/13 Paper 1 (Core Studies 1), maximum raw mark 80

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.

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Cambridge is publishing the mark schemes for the May/June 2013 series for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level components and some Ordinary Level components.

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Section A

1 The study by Mann et al. looked at lying. Describe <u>two</u> differences in the behaviour of criminals telling the truth and criminals lying, found in this study. [4]

Table 1. Behaviors as a Function of Veracity

Behavior	Truthful		Deceptive	
	M	*SD*	*M*	*SD*
Gaze aversion	27.82	9.25	27.78	11.76
Blinks*	23.56	10.26	18.50	8.44
Head movements	26.57	12.34	27.53	20.93
Hand/arm movements	15.51	14.35	10.80	9.99
Pauses*	3.73	5.14	5.31	4.94
Speech disturbances	5.22	3.79	5.34	4.93

*Significance difference ($p < .05$) between lying and truth telling.

1 mark partial (difference stated), 2 marks full (data quoted) × 2.

2 Baron-Cohen et al. (eyes test) investigated Asperger syndrome/high-functioning autism (AS/HFA) participants.

(a) Identify <u>two</u> of the four tests from the WAIS-R used to assess IQ in the AS/HFA group. [2]

block design, vocabulary, similarities, picture completion.

1 mark per test × 2.

(b) Describe the overall score on this test for the AS/HFA group. [2]

in normal range,
mean = 115 (SD 16.1)

1 mark partial (normal), 2 marks full.

3 From the study by Held and Hein (kitten carousel):

(a) What was already known about adult human visual adaptation prior to this study? [2]

that complete sensory adaptation requires <u>movement-produced</u> <u>sensory feedback</u>

1 mark partial, 2 marks full (both underlined ideas above).

(b) Explain whether the results for baby animals (neonates) were the same as those for human adults or different. [2]

the same
because only the kittens which could move (so had movement-produced sensory feedback) developed normal visually guided behaviour and adults in visual rearrangement studies needed stimulation to be dependent on natural movement.

1 mark partial (the same), 2 marks full (explanation).

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4 From the study by Milgram (obedience):

(a) Briefly describe <u>one</u> piece of apparatus used. [2]

Most likely to refer to the shock generator:
switches increasing in 15V steps
labels, e.g.: 15 (slight shock), 75 (moderate), 135 (strong), 195 (very strong), 255 (intense), 315 (extreme intensity shock), 375 (danger: severe shock), 435 (XXX)
with wires attached to the learner

1 mark partial, 2 marks full

(b) Explain why this apparatus was necessary to the study. [2]

Most likely:
provided measure of the DV/ to provide something for the participants to obey with
needed to look authentic

1 mark partial, 2 marks full

5 The participants in the study by Haney, Banks and Zimbardo (prison simulation) were informed about some aspects of the procedure.

(a) Describe <u>one</u> way in which the participants were informed and <u>one</u> way in which they were deceived. [2]

They were informed about:
that they would be randomly assigned to guards or prisoners
prisoners – minimal privacy

They were deceived about:
arrested at home (by 'real' police)
extent to which they would be recorded

1 mark for informed
1 mark for deceived

Do not credit non-procedural events e.g. psychological effects or simple restatement from question that it was a simulated prison
There are other possibilities.

(b) Deception is often used in psychological research. Explain <u>one</u> advantage of using deception in research. [2]

Most likely:
reduces risk of demand characteristics

as participants unaware of the aims of the study / unaware that they are participating / e.g. because the participants didn't know when they were being recorded they would have behaved more naturally

1 mark partial, 2 marks full.
Expansion could be detail or an example from the study.

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6 From the study by Tajfel on intergroup categorisation:

(a) Outline <u>two</u> controls used in the study. [2]

Most likely:
- Boys unaware of aim/randomness of groups
- told group individually
- worked in separate cubicles
- group size

Accept 'matrices the same' etc.

1 mark per control × 2.

(b) Explain <u>one</u> problem with the use of controls in experiments. [2]

Most likely:
makes situation less like natural behaviour, so lowers (ecological) validity / generalisibility

1 mark partial (problem identified), 2 marks full (problem identified and explained).

7 The study by Bandura et al. (aggression) used a matched pairs design.

(a) What is meant by a 'matched pairs design'? [2]

- participants are paired up on the basis of key characteristics which are important to the study
- e.g. pre-existing aggression levels
- then one of each pair are allocated to each condition

1 mark partial, 2 marks full

(b) Describe <u>one</u> advantage of using a matched pairs design in this study. [2]

Matching increases the likelihood that differences in the DV / aggressive behaviour are due to the IV/exposure to model / gender not individual differences in aggression (advantage over independent groups)
Matched pairs avoids order effects which could be present in a repeated measures design.

1 mark partial (advantage of matched pairs), 2 marks full (related to Bandura)

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8 From the study by Freud, give <u>two</u> pieces of evidence that suggest that little Hans was in the Oedipus complex. [4]

Most likely:
Oedipus complex part of phallic stage so:
Hans plays with his widdler;
Hans wants other people to see his widdler / wants to see other people's widdler.
Oedipus: giraffe episode;
phobia of horses.

1 mark partial, 2 marks full × 2

NB No marks for interpretation only, as question asking for evidence

9 Langlois et al. investigated infant facial preference. Describe <u>four</u> features of the stimuli used in study 1. [4]

colour (slides)
men and women
16 of each gender
half attractive faces, half unattractive
rated for attractiveness by undergraduates

1 mark partial, 2 marks full

10 From the study by Nelson on children's morals:

(a) Describe the scale used by Nelson to measure judgments of the 'goodness' of actions in the stories. [2]

Pictorial scale of faces with different expressions (smile/neutral/frown)

1 mark partial, 2 marks full

(b) Explain <u>one</u> advantage of using this type of scale. [2]

Pictures easy for children to understand
easier than words
tested on children who understood it therefore valid

1 mark partial (examples), 2 marks full (explanation)

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11 The study by Dement and Kleitman (sleep and dreaming) collected data about dream duration and used an electroencephalograph (EEG).

(a) Describe the data for dream-duration estimates after 5 minutes and 15 minutes of REM. [2]

5 minutes		15 minutes	
right	wrong	right	wrong
45	6	47	13

1 mark partial (some data), 2 marks full (all data, as above – description not needed)

(b) Explain <u>one</u> advantage of using an EEG in this part of the study. [2]

able to measure REM sleep duration accurately, ensuring that comparisons to dream duration estimates were valid

1 mark partial, 2 marks full

12 The study by Maguire et al. (taxi drivers) used positron emission tomography (PET) scans.

(a) Outline what a PET scan can discover. [2]

regions of brain activation/which areas use energy most quickly
in response to stimuli/tasks
to investigate which areas of the brain are involved in which processes/localisation of <u>function</u>

1 mark partial, 2 marks full

(b) What other brain scan was used by Maguire et al. and why? [2]

Magnetic resonance imaging (MRI)
to map PET scans onto detailed images of brain <u>structures</u>

1 mark partial (name or reason only), 2 marks full.

13 Give <u>four</u> features of the sample of participants used in the study by Demattè et al. (smells and facial attractiveness). [4]

16, untrained, females, from University of Oxford, mean age 26 years, age range 20–34 years, naïve to purpose of experiment initially, normal sense of smell, no history of olfactory dysfunction, normal/corrected-to-normal vision.

Any 1 feature = 1 mark × 4.

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14 In the study by Rosenhan (sane in insane places) most of the pseudo-patients were admitted to hospital with an incorrect diagnosis of 'schizophrenia'. Give <u>two</u> possible explanations for why the hospitals made these mistakes. [4]

Most likely:
can't tell sane from insane;
type 1 error (false positives: diagnosing sane people as insane) better than type 2 error (false negatives: diagnosing insane people as sane);
context in which behaviour observed (claim of hear voices and making appointment is not normal)

1 mark partial, 2 marks full × 2

15 In their study of multiple personality disorder, Thigpen and Cleckley collected empirical evidence from psychological tests. They also gathered anecdotal evidence including events that happened to Eve.

(a) Briefly describe <u>one</u> piece of anecdotal evidence from the study. [2]

Two main pieces of anecdotal evidence, both were said to be done by Eve Black and for which Eve White had no knowledge:
Eve going into the woods and being punished.
Eve going on a shopping trip.

1 mark partial, 2 marks full.

(b) Suggest <u>one</u> problem with anecdotal evidence. [2]

Most likely:
anecdotal evidence may be true;
it may be partially true (e.g. exaggerated)
or it may be totally false.

1 mark partial, 2 marks full.

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Section B

16 Evaluate <u>one</u> of the studies listed below in terms of its usefulness/applications.

Loftus and Pickrell (false memories)
Schachter and Singer (emotion)
Billington et al. (empathising and systemising) **[10]**

No marks for description of study.

Comment	mark
No answer or incorrect answer.	0
Anecdotal evaluation, brief detail, minimal focus. Very limited range. Evaluation may be inaccurate, incomplete or muddled.	1–3
Points illustrating usefulness/application lack depth and/or breadth. The answer is general rather than focused on study but shows some understanding.	4–5
The discussion of usefulness/application is focused on the study although it may lack *either* quality *or* depth. The answer shows reasonable understanding.	6–7
Detail of usefulness/application provides both depth and breadth and is focused on the study. Evaluation is detailed with good understanding and clear expression.	8–10

Examples of possible evaluation points:

Loftus and Pickrell
- useful because allows police/courts to recognise that witnesses may have false memories, because people may make false accusations
- not useful because in the wrong hands such knowledge could provide a way to brainwash people, because it is only based on simple scenarios and real life has many more cues to the truth

Schachter and Singer
- useful because could help us to recognise when we are angry because of the situation and therefore moderate our behaviour, could be used to raise mood (e.g. in depressed people) by finding positive situations, or to understand and perhaps control fear in the company of other frightened people
- not useful because understanding *why* emotions are contagious doesn't necessarily lead to being able to manipulate them: it might not work if you did it yourself, it was an artificial setting and may not generalise to more powerful real world emotions of social situations

Billington et al.
- useful because it provides a foundation for understanding why women find fewer jobs in some academic/professional settings, could stimulate changes in approaches to teaching to achieve equality
- not useful because not necessarily changeable, or desirable to change (nice and contentious!)

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17 Discuss the use of qualitative data in psychology using <u>one</u> of the studies listed below as an example.

Piliavin et al. (subway Samaritans)
Freud (little Hans)
Veale and Riley (mirror gazing) **[10]**

No marks for description of study.

Comment	mark
No answer or incorrect answer.	0
Anecdotal discussion, brief detail, minimal focus. Very limited range. Discussion may be inaccurate, incomplete or muddled.	1–3
Either points limited to illustrating advantages or disadvantages of gathering qualitative data or lack of depth and/or breadth. The answer is general rather than focused on study but shows some understanding.	4–5
Both advantages or disadvantages are considered and are focused on the study although they may be imbalanced in terms of quality or quantity. The answer shows good discussion with reasonable understanding.	6–7
Balance of detail between advantages and disadvantages and both are focused on the study. Discussion is detailed with good understanding and clear expression.	8–10

Examples of possible discussion points:

Piliavin
- qualitative data collected from passengers through conversation gives insight into the possible reasons for action / lack of action.
- However, a content analysis revealed little of interest suggesting that qualitative data may not be as informative as quantitative
- Distribution of comments was interesting, showing that qualitative data *can* indicate more than quantitative, e.g. more comments on drunk trials and when no help until 70 secs suggesting discomfort led to talking.

Freud
- all data was qualitative providing extensive detail, able to pursue exact ideas (by passing questions to Hans' father), increases validity
- but not objective e.g. findings such as underlying meanings of Hans's fantasies open to interpretation, reducing validity and reliability.

Veale & Riley
- almost all data was quantitative but the little qualitative data there was revealed individual differences (e.g. in choice of reflective surfaces) which quantitative data tends to obscure.
- More qualitative data could have provided insight into individual false beliefs which could then be tackled in therapy.
- However, use of statistical procedures is not possible on qualitative data and this led to generalisations which could help most patients most of the time rather than being specific to one.

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