CAMBRIDGE INTERNATIONAL EXAMINATIONS

GCE Advanced Subsidiary Level and GCE Advanced Level

MARK SCHEME for the October/November 2013 series

9698 PSYCHOLOGY

9698/12 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.

Cambridge will not enter into discussions about these mark schemes.

Cambridge is publishing the mark schemes for the October/November 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 From the study by Loftus and Pickrell (false memories):

(a) Describe the aim of this study. [2]

To find out "…whether it is possible to implant (an entire) false memory for something that never happened.."

1 mark partial (e.g. one term identified), 2 marks full (two or more terms identified)

(b) Explain how this aim differs from most earlier research in this area. [2]

Earlier research looked at how post event information causes errors in recall of previously acquired information
i.e. retroactive inhibition

1 mark partial, 2 marks full

2 In the study by Milgram (obedience):

(a) What is meant by 'obedience'? [2]

Most likely: "it is the psychological mechanism which links individual action to political purpose, the dispositional cement which binds men to systems of authority."

1 mark partial (e.g. one term identified)
2 marks full: (e.g. two terms such as 'following rules/orders' and 'by authority')
Any reasonable attempt = 2 marks even if above quote is not mentioned.
N.B. compliance and conformity should be credited

(b) Suggest one reason why obedience in society is desirable. [2]

Most likely: any reasonable suggestion – not breaking laws e.g. traffic lights on red; obeying teaching in classroom; police, etc.

2 marks for reasonable suggestion with a touch of detail.
1 mark bland, basic attempt.

3 From the prison simulation by Haney, Banks and Zimbardo:

(a) Name the sampling method used to select the participants and outline how this was done in this study. [2]

Volunteer/self-selected sampling, through newspaper advertisement

1 mark for naming type of sampling, 1 mark, contextualisation (e.g. newspaper advert).

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(b) Give <u>one</u> disadvantage of this sampling method as used by Haney, Banks and Zimbardo. [2]

Most likely:
may not be representative of wider population, so findings about situational hypothesis may not apply to other types of people than those tested (mainly Caucasian males)

1 mark partial (statement of disadvantage, however brief), 2 marks full (application to HBZ, however brief).

4 From the study by Tajfel on intergroup categorisation:

(a) What is meant by 'discrimination'? [2]

Specifically "discrimination is a direct function of the objective social situation, which sometimes does and sometimes does not facilitate the expression of attitudes".

More likely:
candidates should be clear that discrimination (behaviour) is different from prejudice (attitude/cognition).

1 mark partial (prejudice), 2 marks full.

(b) How did the participants in the study show discrimination? [2]

Most likely: by allocating fewer points to the out-group; by showing out-group discrimination; by choosing maximum difference.

1 mark partial, 2 marks full.

5 The study by Bandura et al (aggression) was an experiment.

(a) What is meant by an 'experiment'. [2]

- IV and DV (only if not next 2 points)
- IV manipulated
- DV measured
- comparison between groups
- looking for differences
- investigates causal relationships
- controls employed

1 mark partial, 2 marks full (any two points, well explained or several weakly).

N.B. No credit for just listing types of experiments (lab, field, natural) as this does not explain what an experiment is.

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(b) Identify and outline the experimental design used. [2]

most likely
independent groups
different participants in each level of the IV

accept
matched participants
participants in each level of the IV matched on some aspect(s)/for aggressiveness

1 mark partial, 2 marks full.
N.B. Identification of design and explanation of it must match for 2 marks.

6 Study 2 of Langlois et al compared infants' preferences for attractive and unattractive black women's faces.

(a) Pairs of photographs were presented twice. On the second presentation the left-right position was reversed. Why was this necessary? [2]

control
differences not due to response bias

1 mark partial, 2 marks full.

accept: prevents order/fatigue/practice effect; which lowers validity (2 marks)
Observer bias is a bias of the researcher who is measuring the DV by observation, not the participant who observes as part of the task, so is not creditworthy.

(b) What was concluded from study 2? [2]

Most likely:
infants prefer attractive (black) faces (over unattractive ones, as with white faces, not affected by sex of infant, attractiveness of face or maternal attractiveness)

The question asks for conclusions so no marks for results alone (although can be used as elaboration of explanation)

1 mark partial, 2 marks full.

7 In the study by Nelson on children's morals:

(a) How was the ethical guideline of consent followed? [2]

Consent from parents
as children too young to give consent/wouldn't understand
N.B. 'How' in question must be addressed for full marks.

1 mark partial, 2 marks full.

N.B. The children themselves were not asked for consent
No credit for answers that actually explain other guidelines, such as right to withdraw, protection from harm or avoiding deception.

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(b) Why is this guideline important? [2]

Ensures participants (parents of participants) are aware of **what** will happen in the study (i.e. informed)
and have agreed to it.
e.g. parents might have felt that exposure to 'bad' examples would harm children

1 mark partial, 2 marks full.

N.B. Answer does not have to be contextualised although reference to study could (but will not necessarily) provide expansion.
N.B. No marks for 'children need to be protected', 'be safe' for example.

8 From the study by Schachter and Singer on emotion:

(a) Outline <u>one</u> method that was used to record the responses of the participants. [2]

EITHER: standardised observation through a one-way mirror
OR: self report on a number of scales.

1 mark identification (e.g. 'observation'), 1 mark for description (however brief) e.g. 'observation' and 'one-way mirror'.

(b) What is the advantage of using this method in this study? [2]

Observation allows observers to record actual behaviours of participants.
Self reports allow participants to say what they think about what goes on.

1 mark partial (not contextualised), 2 marks full: must be contextualised e.g. 'to record the responses… to the stooge'/'the … angry or euphoric…responses'

9 From the study by Dement and Kleitman (sleep and dreaming), outline <u>two</u> ways in which observations of the participants were made. [4]

Observations of eye movements:
2 or more electrodes
attached near the eyes
to record corneoretinal (electrical) potential (as the eyes moved)
[wires attached to top of head to allow free movement]
[wires to EEG in adjacent room]

Observations of brain waves:
2 or 3 electrodes
attached to scalp
[wires attached to top of head to allow free movement]
[wires to EEG in adjacent room]
EEG run continuously (throughout sleep period)
paper speed of 3 or 6 mm/sec

1 mark partial (brief comment), 2 marks full (some expansion), × 2.

N.B. No direct observations of the participants/observations through a one-way mirror were taken
N.B. 'use of wires' can be credited only once.

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10 The study by Maguire et al (taxi drivers) used a positron emission tomography (PET) scanner.

(a) Describe the PET scanning technique used in this study. [2]

- $H_2{}^{15}O$ / heavy water / radioactive water
- injected / administered 12 times / 8 minutes apart
- radioactivity measured / counts made over 90 sec periods
- to indicate cerebral blood flow
- indicating more active brain areas

1 mark partial, 2 marks with some clear expansion (e.g. 'radioactive water was injected and radioactivity in the brain indicated areas of activity').

PET scanning itself does not activate brain areas (the baseline task provided control activation using number repetition), it only measures them so no marks for 'the part of the brain being activated' alone.

(b) Describe <u>one</u> advantage of PET scanning. [2]

e.g.
- very reliable, because machine procedure is not affected by human subjectivity / because will perform in the same way each time it is used
- measure *functioning* brain, unlike (standard) MRI/autopsy

1 mark partial, 2 marks full.

The purpose of PET scanning is to understand brain function, therefore this is not an advantage.

11 The study by Demattè et al (smells and facial attractiveness) collected quantitative data.

(a) Describe what is meant by 'quantitative data' and give an example from this study. [2]

- numbers
- example can either be type of data collected e.g. rating facial attractiveness (also of odour intensity/pleasantness/familiarity) or actual data:

Table 1 Mean facial attractiveness ratings as a function of the attractiveness group and odor (standard deviations are reported in parentheses)

Facial attractiveness	Odor				
	Clean air	Geranium	Male fragrance	Body odor	Rubber
High	5.70 (0.21)	5.48 (0.23)	5.73 (0.24)	5.39 (0.21)	4.96 (0.25)
Low	4.10 (0.16)	4.06 (0.20)	4.15 (0.20)	3.64 (0.21)	3.72 (0.23)

1 mark partial, 2 marks full (both 'numerical' and link to study).

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(b) Describe <u>one</u> advantage of quantitative data. [2]

- reliable, as no interpretation required by research/more objective/less subjective
- can use statistics, so analysis gives extra information

1 mark partial (e.g. is reliable/accurate), 2 marks full (reason and explanation).

Accept: Useful for comparison, easy to analyse, etc.
Beware of circular answers saying 'it's quantifiable' or 'it can be presented numerically'
Don't accept 'scientific' in place of reliable/objective/less subjective, as in isolation, i.e. in relation to data rather than to a procedure, 'scientific' is meaningless.

12 Rosenhan (sane in insane places) identifies several reasons why it may be difficult to tell the normal from the abnormal.

(a) Identify <u>two</u> of these reasons. [2]

From the paper:
'…conflicting data on the reliability, utility, and meaning of such terms as "sanity", "insanity", "mental illness" and "schizophrenia".'

'…normality and abnormality are not universal. What is viewed as normal in one culture may be seen as quite aberrant in another.'

'…Failure to detect sanity during the course of hospitalisation may be due to the fact that physicians operate with a strong bias toward what statisticians call the Type 2 error.'

Most likely:
lack of valid/reliable definitions
cultural differences
effect (stickiness) of labels (insane)
(i.e. type 2 or 'pessimistic' errors, which diagnose sane people as insane, then stick – see pages 252, 257 for type 2 error comments)
effect of context (hospitalisation)

1 reason = 1 mark × 2

N.B. Type 1 errors could explain the difficulty (in the context of the results of second part of the study, and Rosenhan does say this – end of page 252 so it can also earn marks)

(b) Describe <u>one</u> normal behaviour of the pseudo-patients which was interpreted as abnormal by the hospital staff. [2]

Most likely:
queuing early for lunch; because bored/interpreted as oral acquisitive:
taking notes; about the actions of staff/described as note-taking behaviour;

1 mark partial (brief identification of normal behaviour), 2 marks full (expansion e.g. detailed description of normal behaviour or elaboration with interpretation by hospital staff).

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13 The study by Thigpen and Cleckley is about multiple personality disorder.

(a) What is 'multiple personality disorder'? [2]

Most likely: According to DSM IV-TR it describes a condition in which a single person displays multiple distinct identities or personalities, each with its own pattern of perceiving and interacting with the environment. Now called dissociative identity disorder.

1 mark partial (e.g. two or more personalities), 2 marks full (e.g. two or more personalities existing in the same person)

(b) What is the difference between having multiple personality disorder and having different sides to your personality? [2]

Most likely: With MPD patients tend not to recall memories of the other personality; a person with different sides always remembers what the other sides do, think and say. MPD may not be aware; different sides is 'aware'.

1 mark partial (incomplete or muddled but correct), 2 marks full (sufficient detail/explanation to demonstrate clear understanding)

14 The study by Billington et al is based on Empathising-Systemising theory.

(a) What does this theory predict about empathising and systemising in females? [2]

Females will empathise more (than males) and have lower systematising scores

1 mark partial (either empathising **or** systematising only or no comparison to males), 2 marks full (e.g. females empathise unlike males who systemise).

(b) Describe <u>one</u> problem with the conclusion from the study by Billington et al. [2]

Billington et al suggest "This claim only applies on average; thus, there will always be individuals who are atypical for their sex." Any other appropriate problem receives credit.

1 mark partial, 2 marks full.

Beware of answers which are problems with the procedure/design (e.g. use of forced choice format), not problems with the conclusion. Also the problem may focus on degree subject choice not just empathising.

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15 The study by Veale and Riley (mirror gazing) used the self report method.

(a) Describe how the data about 'motivation before looking in a mirror' were gathered. [2]

Likert scale/5 point scale/scale of strongly disagree to strongly agree
in response to statements about reasons
such as 'I look in the mirror to see how I feel'
Also was open-ended question: 'At the end there was the option of writing down anything else that motivated them to use the mirror.'

1 mark partial, 2 marks full.

(b) State <u>one</u> advantage and <u>one</u> disadvantage of collecting self report data. [2]

e.g.: Ad:
quick/easy for participants to complete
tells us how they feel
Disad:
Participants could lie
risk of participants giving extreme or middle answers to all (i.e. response bias but term itself cannot earn credit)

1 mark for an advantage, 1 for a disadvantage, however brief
N.B. answers do not need to be contextualised.

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Section B

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

Baron-Cohen et al (eyes test)
Piliavin et al (subway Samaritans)
Freud (little Hans) **[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
Either points illustrating strengths and weaknesses of study in terms of reliability lack depth and/or breadth *or* only strengths or weaknesses are considered. The answer is general rather than focused on study but shows some understanding.	4–5
Both strengths and weaknesses of study in terms of reliability are considered and argument is focused on the study although the evaluation may be imbalanced in terms of quality and/or depth. The answer shows reasonable understanding.	6–7
Balance of detail between strengths and weaknesses of study in terms of reliability and both are focused on the study. Evaluation is detailed with good understanding and clear expression.	8–10

Examples of possible evaluation points:

Baron-Cohen et al
- revised eyes test more reliable than original
- small group sizes

(N.B. do not accept static eyes as a reliability issue)

Piliavin et al
- use of stooges ensures each situation identical
- field setting means impossible to control all situational variables in train

Freud
- a lot of data collected so many pieces of evidence to support same idea
- single participant (Hans) difficult to replicate as 'special'
- interpretation (by Freud/Hans' dad) is subjective so other researchers could interpret differently (inter-rater reliability)

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17 Discuss the strengths and weaknesses of observations as a research method using <u>one</u> of the studies listed below as an example.

Mann et al (lying)
Held and Hein (kitten carousel)
Bandura et al (aggression) **[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
Either points illustrating strengths and weaknesses of observations lack depth and/or breadth *or* only strengths or weaknesses are considered. The answer is general rather than focused on study but shows some understanding.	4–5
Both strengths and weaknesses of observations are considered and argument is focused on the study although the evaluation may be imbalanced in terms of quality and/or depth. The answer shows reasonable understanding.	6–7
Balance of detail between strengths and weaknesses of observations and both are focused on the study. Evaluation is detailed with good understanding and clear expression.	8–10

Examples of possible evaluation points:

Mann et al
- observations based on scientific equipment so highly objective/reliable
- observations in lab context so may be unrepresentative

Held and Hein
- observations used visual cliff which simulates a real-life encounter with depth
- lab setting of visual cliff may have reduced ecological validity

Bandura et al
- observers behind one-way glass, reducing demand characteristics
- lab observations unrealistic because adults don't demonstrate aggression to children/there are usually negative consequences in the real world

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