CAMBRIDGE INTERNATIONAL EXAMINATIONS

GCE Advanced Subsidiary Level and GCE Advanced Level

MARK SCHEME for the October/November 2012 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.

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Section A (60 marks)

Answer all questions in this section.

1 Describe two features of the participants from the study by Mann et al (lying). [4]

- police suspects (9 theft, 2 arson, 1 attempted rape, 4 murder)
- males and females (13 M, 3 F)
- juveniles and adults (4 J: 13–15 years, 12 adults: under 65)
- 2 ethnic/language groups (15 Caucasian/English first language, 1 Asian/Punjabi speaker but fluent in English)
- majority already known to the police/had been interviewed before (10/16).

1 mark for identifying feature, 1 mark for describing × 2.

2 From the study by Loftus and Pickrell (false memories):

(a) Describe what is meant by 'retroactive inhibition'. [2]

Memories disrupt each other = interference. When memories are disrupted by things that we experience later = retroactive interference.

1 mark partial, 2 marks full.

Interference that works 'backwards' [1 mark].
Forgetting/inaccurate recall of one thing because a subsequent thing disrupts the first memory [2 marks].

(b) Explain how Loftus and Pickrell's study is a test of retroactive inhibition. [2]

Original memory of childhood is disrupted by *subsequent* (inaccurate) information (from booklet).

1 mark partial, 2 marks full.

3 Baron-Cohen et al made five predictions about the results on the revised eyes test. Describe two of these predictions. [4]

- The AS/HFA group would score significantly lower on the mental state judgments on the Eyes Test (…but be unimpaired on the gender control judgments / …than…).
- The AS/HFA group would score significantly higher in the AQ (…than…).
- Females in the 'normal' groups (2 and 3) would score higher (than males on the Eyes Test).
- Males in the 'normal' group (3) would score higher (than females on the AQ).
- Scores on the AQ (and the Eyes Test) would be inversely correlated.

1 mark partial, 2 marks full x 2.

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4 The study by Held and Hein (kitten carousel) used an independent groups design.

(a) What is meant by the term 'experimental design'? [2]

The way in which participants are allocated to experimental groups/conditions/levels of the IV.

1 mark partial, 2 marks full.

NB Listing possible experimental designs without explanation = 1 mark regardless of how many given.

(b) Explain <u>one</u> disadvantage for Held and Hein of using an independent groups design. [2]

There may have been important differences between individuals in different experimental groups (e.g. in terms of maturation/perceptual ability) producing spurious differences between levels of the IV (active/passive).

1 mark for general advantage, however elaborated.
2 marks for advantage related to study, however briefly.

5 From the study by Milgram (obedience), describe <u>two</u> features of the experiment that may explain the high levels of obedience. [4]

Most likely:
- *done at Yale* – prestigious University
- experiment has a *worthy purpose* – learning and memory
- participant has *volunteered* – so more likely to obey as feel obliged
- participant is *paid* – even though told they can keep it may oblige them to continue
- *teacher-learner appears random* – so both had equal chance/participant believes they could have been learner
- *participants told 'painful but not dangerous'* – so believe they are not causing harm
- the '*prods'* – feel unable to stop/agentic state
- the *authority figure* (man in grey coat) – so feels obliged/agentic/didn't want to go against order.

1 mark partial (italics), 2 marks full × 2.

6 The study by Piliavin et al (subway Samaritans) was a field experiment.

(a) Explain why a field experiment was used. [2]

Most likely:
- to increase ecological validity (as helping behaviour is a real world phenomenon not just one that happens in a lab)
- because it complements the high controls in lab experiments (such as Darley and Latane, 1968).

1 mark for general reason, however elaborated.
2 marks for reason related to study, however briefly.

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(b) Give <u>one</u> disadvantage of a field experiment for this investigation. [2]

Most likely:

- hard to impose controls, e.g. only approximately 70 seconds after collapse that model assisted victim/in cane trials victim was often helped before model's 70 seconds was reached
- as 6 to 8 trials a day on same subway route, possible that same people could have been travelling and been exposed to procedure before
- unpredictable number of passengers on train, so view may have been more obscured on some journeys.

1 mark partial.
2 marks full (elaborated disadvantage, with or without reference to study).

7 Describe <u>two</u> ethical issues raised in the study by Bandura et al on the imitation of aggression. [4]

Most likely:

- consent: having enough information to decide to participate – children themselves didn't (NB paper provides no indication of parents giving consent)
- confidentiality: keeping identify of participants secure (although location – Stanford University Nursery School – is known, individuals' names are not)
- deception: being lied to about aims or procedures (children not deceived about aim because not told/children deceived in the arousal procedure by telling them the very best toys were for the other children).

1 mark for general description of ethical issue, however elaborated.
2 marks for description or identification of ethical issue related to study (as above), however briefly.

1 mark partial, 2 marks full × 2.

8 In the study by Freud, little Hans is asked 'When the horse fell down did you think of your daddy?'

(a) Give <u>one</u> problem with this type of questioning. [2]

(Leading therefore) suggests a particular answer so is less likely elicit true response/ produces biased answer/leads to expected findings.

1 mark partial, 2 marks full.

(b) How did Freud interpret Hans' fear of horses? [2]

Unconscious representation of fear of father as a rival for mother's affections because horses' bridles symbolised father's moustache/because horses have big penises.

As an expression of the Oedipus conflict (1 mark).

1 mark partial, 2 marks full.

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9 From the study by Langlois et al (infant facial preference):

(a) In study 1, explain how the parents were prevented from seeing the facial stimuli. [2]

Parents wore occluded glasses/glasses that prevented viewing of the faces.

1 mark partial, 2 marks full.

Blindfolded (1 mark).

(b) Explain why this was necessary. [2]

To prevent communication of parental preferences to the infant.

1 mark partial, 2 marks full.

So they didn't affect the infant (1 mark).

10 From the study by Nelson (children's morals):

(a) Describe <u>two</u> features of the sample used in study 1. [2]

- 60 30
- preschoolers 2nd graders
- 3–4 years 7–8 years
- boys and girls (approximately equal)
- mostly white, middle class, urban.

1 mark × 2.

(b) Describe how the children were assigned to one of the three story-presentation conditions. [2]

Randomly (2 marks).

11 From the study by Schachter and Singer (emotion):

(a) Identify the <u>two</u> methods used to record the responses of participants. [2]

- observation
- self report
- pulse rate.

1 mark × 2.

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(b) Outline an advantage of <u>one</u> of these methods. [2]

Possible advantages:
observation:
- *standardised* (agreed categories)
- *through a one-way mirror* (reduced demand characteristics)
- *valid as participant believed the context was 'semi-private'* (known only to one other person – the one in the room with them).

self report:
- *assessed mood rather than behaviour* (i.e. internal states that cannot be directly observed)
- *used some open questions* (so able to collect detailed data).

1 mark partial, 2 marks full.

12 The study by Dement and Kleitman looked at several different relationships between eye movements and dreaming. Describe <u>two</u> of the relationships that were investigated. [4]

- whether eye movements were related to REM dreaming
- whether length of eye movement phase was related to length of dream
- whether specific eye movements (vertical/horizontal) were related to dream content
- whether dreaming only occurs in REM sleep and not in nREM sleep.

1 mark partial, 2 marks full × 2.

13 Describe <u>two</u> aims from the study by Maguire et al on taxi drivers. [4]

- to examine brain areas activated by semantic topographical memory
- to see whether semantic topographical memory elicited activity in similar brain areas to episodic topographical memory
- to differentiate activation of landmark knowledge from spatial layout knowledge
- to compare brain activation in relation to topographical and nontopographical information.

1 mark partial, 2 marks full × 2.

14 In the study by Thigpen and Cleckley (multiple personality disorder) several psychological tests were used.

(a) Describe <u>one</u> of the psychological tests that was used in the study. [2]

Any psychometric test or other psychological test:
- Wechsler-Bellevue (IQ/Intelligence test)
- Wechsler (memory scale/memory function e.g. recall of digits)
- drawings of human figures (projective test/test of personality)
- Rorschach/ink blot (projective test/test of personality/defence mechanisms).

1 mark partial, 2 marks full.

NB no marks for EEG (physiological), hypnosis or handwriting analysis (not 'tests').

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(b) Describe what the results of this test showed. [2]

- *IQ*: *White* – 110, *Black* – 104
- *Memory*: *White* – memory far above IQ, *Black* – memory on a par with IQ
- *Rorschach*: *Black* – healthier but hysterical, able to conform with environment, *White* – obsessive compulsive, constriction, anxiety, rigid, unable to cope with hostility
- *Rorschach/human figures*: e.g. defence mechanisms: *White* – regression of married life, *Black* – regression of life before marriage.

1 mark partial, 2 marks full × 2.

e.g. difference in IQ (1 mark)
White 110, Black 104 (2 marks).

NB no marks for EEG (physiological), hypnosis or handwriting analysis (not 'tests').

15 The study by Billington et al (empathising and systemising) categorised student participants into those studying physical science and those studying humanities subjects. Name <u>four</u> subjects which were categorised as physical science. [4]

Astronomy, Astrophysics, Chemical Engineering, Chemistry, Communications, Computer Science, Engineering, Geology, Geophysics, Manufacturing Engineering, Material Science, Maths, Mineral Science, Physical Natural Sciences, Physics.

1 mark × 4.

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Section B (20 marks)

Answer both questions in this section.

16 Evaluate one of the studies listed below in terms of its usefulness or applications. [10]

Mann et al (lying)
Tajfel (intergroup categorisation)
Veale and Riley (mirror gazing)

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:

Mann, Vrij and Bull

- helps to assess truthfulness of evidence/confessions so facilitates correct convictions/ acquittals e.g. considering:
  less fidgeting and eye contact (incorrect)
  large individual differences (need for caution)
- and is better evidence (as based on real police evidence) than lab studies where participants:
  are asked to lie
  can opt to lie or tell the truth
  have negligible consequence
  are given rewards not punishments.
- therefore can guide protocol for using interview data
- ***but*** may not be very informative about truthfulness of evidence as:
  no baseline measures or manipulation of cognitive load
  only 16 suspects
  the suspects may differ from others in terms of likelihood of arrest/feelings of guilt/lying experience/concerns for consequences.
  different interviewers used for different participants
  sometimes more than one interviewer was present
  sometimes different numbers of people present (attorney, appropriate adult etc.)
- the clips used as lie/truth comparisons may not have been comparable
- no comparison between falsely claiming innocence and doing so truthfully (both high stake so unlike laboratory situations).

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Tajfel

- helps to understand basis of prejudice (attitude: cognitive and affective elements)
- hence understanding discrimination (behavioural element)
- especially in relation to separating the effect of attitudes from that of genuine competition.
- knowing that out-group discrimination is so easy to trigger is useful to help to limit situations that might lead to it (i.e. pure categorisation)
- value of recognising complexity of factors leading to a behaviour (e.g. conflict of 'groupness' and 'fairness')
- recognising risks of educators in competitive societies stressing 'teams' and 'team spirit' in schools as early socialisation has side effects
- ***but*** the conclusions may not be useful because:
  limited sample
  laboratory setting
  judgment based on dots/paintings and awarding of points although well controlled ('minimal' group) doesn't represent complexity or consequences of real groups
- there are individual differences in points-awarding behaviour e.g. between competitive and co-operative personalities
- being asked to justify choices of points changes behaviour
- in reality we cannot undo the groups which have formed (but could work towards single group identity to reduce prejudice).

Veale and Riley

- helps to develop understanding of BDD as a series of complex safety behaviours – not just like simple model of anxiety reduction by compulsive mirror checking of obsessive-compulsive disorder
- helps to develop strategies for therapy:
  monitoring longest session and frequency of short sessions aims to reduce time spent mirror gazing
  learning to use mirrors healthily rather than avoiding them [see strategies 1–9 overleaf]
  change beliefs from 'what you see is what you get' to 'what you see is what you construct' i.e. change selective attention/develop more realistic internal representation of body image (using behavioural experiments)
  cost-benefit analysis to consider valuation of appearance (e.g. perfectionism, social acceptance via role-play)
  response-cost (participant pays money to most *hated* organisation for each mirror gaze).
- ***but*** failed to measure distress associated with resisting the urge for a short mirror session so measures of distress are flawed
- also conclusions may not generalise to all BDD patients because:
  individual differences between patients (e.g. focus of disorder, behaviours in front of mirrors)
  BDD participants chosen because mirror gazing was a feature for their problem, so other BDD patients are likely to feel and behave differently.

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make-up). Patients (whether they are gazing or avoiding) are encouraged to develop the following goals:

1. To use mirrors at a slight distance or ones that are large enough to incorporate most of their body;
2. To deliberately focus attention on their reflection in the mirror rather than an internal impression of how they feel;
3. To only use a mirror for an agreed function (e.g. shaving, putting on make-up) for a limited period of time;
4. To use a variety of different mirrors and lights rather sticking to one which they "trust";
5. To focus attention on the whole of their face or body rather than a specific area;
6. To suspend judgement about one's appearance and distance oneself from automatic thoughts about being ugly or defective;
7. Not to use mirrors that magnify their reflection;
8. Not to use ambiguous reflections (for example windows, the backs of CDs or cutlery or mirrors that are dusty or cracked);
9. Not to use a mirror when they feel have the urge but to try and delay the response and do other activities until the urge has diminished.

17 Discuss <u>one</u> of the studies listed below in terms of whether it supports an individual or situational explanation. [10]

Haney, Banks and Zimbardo (prison simulation)
Rosenhan (sane in insane places)
Demattè et al (smells and facial attractiveness)

No marks for description of study.

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

Examples of possible discussion points:

Haney, Banks and Zimbardo

- situational:
  pathology of power (guards)
  pathological prisoner syndrome
- individual:
  some prisoners suffered more than others
  guards varied in behaviour.

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Rosenhan

- situational:
  pseudopatients received diagnosis
  pseudopatients treated as insane
  second stage – non-pseudopatients rejected
- individual:
  pseudopatients differed in time to release.

Demattè et al

- situational:
  odours affect apparent attractiveness
  regardless of relevance to context
- individual:
  social/socio-sexual factors may be important but were not explored (e.g. sexual intercourse, sleeping next to partner, formal dating etc.).

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