UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

GCE Advanced Subsidiary Level and GCE Advanced Level

MARK SCHEME for the May/June 2010 question paper

for the guidance of teachers

9698 PSYCHOLOGY

9698/11 Paper 11 (Core Studies 1), maximum raw mark 100

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.

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UNIVERSITY of CAMBRIDGE
International Examinations

Section A

1 From the study by Loftus and Palmer on eyewitness testimony:

(a) Give *one* way in which the study was not ecologically valid.

Ecological validity relates to real life and so any difference between a real car crash and watching a film in a laboratory is acceptable:

- Crash is on videotape which limits panorama and/or sounds
- Crash is expected by participants
- Crash has no emotional involvement

1 mark partial, 2 marks expansion. (2)

(b) Suggest *one* way in which the study could be made more true to real life.

Most likely:

- conducting a simulation
- observing a real car crash

Note that limitations of the suggestion are not needed but are creditworthy.

1 mark partial e.g. staging a car crash, 2 marks expansion. (2) [4]

2 The review by Deregowski refers to different types of evidence on picture perception.

(a) Briefly describe *one* piece of anecdotal evidence.

Most likely:

- Robert Laws: picture of ox or dog presented; participants couldn't identify it
- Mrs Fraser: lady looking for other eyes etc. in profile of face
- 'other reports': image presented and participants fled. Brave chief looked!

1 mark partial explanation, 2 marks expansion. (2)

(b) Briefly describe *one* piece of empirical evidence.

Most likely: any Hudson study:

- antelope/elephant/man
- split style (to explain the result of the antelope/man/elephant; preference for perspective)
- 'two-pronged trident'
- cube construction

1 mark partial description of study, 2 marks expansion. (2) [4]

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3 From the study by Baron-Cohen, Leslie and Frith:

(a) What are the Down's Syndrome and the 'normal' children able to do in the 'Sally-Anne Test'?

Most likely:

They can answer all four questions correctly i.e. the naming, memory and reality questions and the crucial belief question.

1 mark for each of two questions correctly named or 2 marks for stating that they can answer all four questions correctly. (2)

(b) What are autistic children unable to do and what reason do Baron-Cohen, Leslie and Frith give for this failure?

Most likely:

1 mark: autistic children are unable to answer the belief question correctly (or words to this effect).

1 mark: because they do not have a theory of mind. (1 + 1) [4]

4 There is some discussion regarding the study by Gardner and Gardner about whether Washoe actually learned *language* or whether she just *communicated* through imitated gestures. Give *two* pieces of evidence that suggest Washoe learned language.

Most likely answers:

- Washoe was able to generalise a sign to new contexts
- Washoe could differentiate
- Washoe showed sentence combinations

1 mark partial description, 2 marks expansion. (2 + 2) [4]

5 The study by Samuel and Bryant on conservation involved children.

(a) Describe *two* features of the sample of children.

Most likely:

- 252
- Boys and girls
- Schools in and around Crediton, Devon, UK
- Ages (5–8)

1 mark for each correctly identified feature; 2 max. (2)

(b) Give *one* reason why the children in this study were not debriefed.

Most likely:

- Children were under 16 years of age and had not given full informed consent
- Children would not understand the debrief if it was explained to them

1 mark partial, 2 marks explanation. (2) [4]

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6 The study by Bandura, Ross and Ross matched participants for pre-existing levels of aggression.

(a) Describe *how* the children were matched for pre-existing levels of aggression.

Quote from study:

- "The subjects were rated on four five-point rating scales
- by the experimenter and a nursery school teacher, both of whom were well acquainted with the children.
- These scales measured the extent to which subjects displayed physical aggression, verbal aggression, aggression toward inanimate objects, and aggressive inhibition."

1 mark partial, 2 marks explanation (e.g. 1 mark for any two of the above aspects). (2)

(b) Describe *why* the children were matched for pre-existing levels of aggression.

Quote from study:

"It seemed reasonable to expect that the subject's level of aggressiveness would be positively related to the readiness with which they imitated aggressive modes of behaviour. Therefore, in order to increase the precision of treatment comparisons, subjects in the experimental and control groups were matched individually on the basis of ratings of their aggressive behaviour in social interactions in the nursery school."

i.e. it is to control levels of aggression that existed before the study started.

1 mark partial, 2 marks expansion. (2) [4]

7 In the study by Schachter and Singer on emotion the stooge behaved either angrily or euphorically.

(a) Describe *one* way in which the stooge behaved angrily and *one* way in which the stooge behaved euphorically.

Most likely angrily:

- Participants complete questionnaires. Critical ones are Qs 17 and 28
- Q17: 'What is your father's average annual income?' and the stooge says, this really irritates me. It's none of their business what my father makes. I'm leaving that blank'.
- Q28: 'How many times each week do you have sexual intercourse?' to which the stooge responds, 'The hell with it! I don't have to tell them all this'. He rips up his questionnaire, crumples the pieces and hurls them to the floor, saying, 'I'm not wasting any more time. I'm getting my books and leaving', and he stamps out of the room.

Most likely euphorically:

- doodles a fish
- crumples paper and starts a basketball game
- makes paper airplane and throws about room
- builds a tower, knocks it over and cheers
- picks up hula hoop and twirls on arm

1 mark any one *angry* behaviour and 1 mark any *euphoric* behaviour. (1 + 1)

(b) Which *two* groups of participants tended not to copy the behaviour of the stooge?

Most likely:

- The EPI INF (epinephrine informed) group because they had an explanation for their emotion.
- The control (or placebo) group because they had no physiological arousal and so had nothing to explain.
- EPI MIS and EPI IGN are incorrect.

1 mark for correct identification of group; explanation not needed. (1 + 1) [4]

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8 The study by Dement and Kleitman on sleep and dreaming involved gathering both qualitative and quantitative data.

(a) Give an example of the qualitative data that was gathered.

Most likely: participants report:

- dream narrative or content e.g. length of dream description e.g. watching people throw tomatoes

1 mark partial explanation, such as "content of dream", 2 marks for answer with expansion such as "content of dream: watching people throw tomatoes". (2)

(b) Give an example of the quantitative data that was gathered.

Most likely:

- EEG recording as to whether participant is in REM or NREM sleep (number of occasions in which report having a dream)
- whether eye movements are mainly vertical, mainly horizontal, both or very little movement
- they are dreaming or not dreaming: yes or no gives nominal data
- estimated length of dream e.g. 5 minutes of 15 minutes

1 mark partial explanation, 2 marks for answer with expansion. (2) [4]

9 (a) In one experiment from the study by Sperry, split-brain participants could describe an object presented to them visually. Identify the visual field and hemisphere that would allow the object to be named.

Two statements here:
Right visual field (RVF) 1 mark.
Left hemisphere 1 mark. (1 + 1)

(b) In a second experiment, Sperry found that participants could not describe an object presented to them visually. Identify the visual field and hemisphere that would prevent the object from being named.

Two statements here:
Left visual field (LVF) 1 mark.
Right hemisphere 1 mark. (1 + 1) [4]

10 In his study of obedience to authority, Milgram lists features of the experiment that explain the high amount of obedience observed. Describe *two* of these features.

Most likely:

- Study done at Yale University; personnel reputable and competent
- Study has a worthy purpose
- Perception that the victim has agreed to participate
- Participants themselves feel obligation to participate
- Certain features strengthen the obligation e.g. payment
- Drawing lots was fair and so teacher can't complain
- Shocks are painful but not dangerous, so isn't a problem
- The learner continues to scream, so teacher believes ok to continue

1 mark partial, 2 marks expansion. (2 + 2) [4]

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11 In the study by Piliavin, Rodin and Piliavin the two observers collected quantitative data.

(a) Suggest *one* weakness with the way in which the observational data was collected.
Most likely:
- Two observers recording different things so no check regarding reliability
- Bystander may have obscured view of one or both observers
- Bystanders may have been influenced by presence of observers
- Events may have happened too quickly for the observers to record all the data

1 mark partial, 2 marks expansion. (2)

(b) Suggest *one* way in which the collection of data could have been improved.
Most likely:
- use of more observers so can do inter-rater reliability check
- record actions on camera so no need for people to observe and can replay later

1 mark partial, 2 marks expansion. (2) [4]

12 In the experiment by Tajfel on intergroup categorisation, there were three choices: maximum joint profit, maximum in-group profit and maximum difference.

(a) Which choice did most boys make?
Boys chose maximum difference. 2 marks for correct answer. (2)

(b) What does this choice tell us about the behaviour of the boys?
Most likely: they are ethnocentric and prefer to maximise difference between groups even though they could have had a greater reward.
1 mark partial, 2 marks full. (2) [4]

13 The study by Rosenhan (sane in insane places) raises a number of ethical issues.

(a) Give *one* reason why the study should have been done.
Most likely:
- the ends justify the means
- it tells us what is really going on behind the closed doors of a mental institution
- it tells us that psychiatric diagnosis of mental illness may be ambiguous
- it tells us that psychiatrists prefer to make a type 2 error if in doubt

1 mark partial, 2 marks expansion. (2)

(b) Give *one* reason why the study should *not* have been done.
Most likely:
- The participants (doctors, nurses, attendants) did not give full, informed consent
- The participants (doctors, nurses, attendants) were deceived
- It revealed the embarrassing nature of psychiatric institutional care

1 mark partial, 2 marks expansion. (2) [4]

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14 The famous scientist Albert Einstein is mentioned in the review by Gould on intelligence testing.

(a) Suggest why Einstein would have performed poorly in the IQ tests.

Most likely: quote from article:
"The army tests had, for example, assessed Jews (primarily recent immigrants) as quite low in intelligence." Therefore they must all be of low intelligence, because intelligence is inherited.
More likely: Einstein would have been an immigrant and know nothing about the culture of the United States.
1 mark partial, 2 marks expansion. (2)

(b) Suggest what this tells us about the real nature of intelligence.

Interpret answers to this question in the widest sense possible. For example, credit answers referring to the nature of intelligence tests.
Most likely:

- it tells us that it is false to assume that everyone/whole nation or skin colour/genetic breeding is the same
- intelligence can be learned as intelligence scores improve with experience of a culture
- also credit that intelligence tests have cultural bias and cannot (ever?) test innate intelligence

1 mark partial, 2 marks expansion. (2) [4]

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

(a) What is multiple personality disorder?

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, 2 marks expansion. (2)

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

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.
1 mark partial, 2 marks expansion. (2) [4]

Partial/full answer

0 marks	no answer **or** incorrect answer
1 mark	partially correct answer **or** correct but incomplete, lacking sufficient detail or explanation to demonstrate clear understanding
2 marks	correct answer with sufficient detail/explanation to demonstrate clear understanding

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Section B

16 Psychological research is often carried out on a restricted sample of participants. For example, some studies use only male participants, or students and some studies sample those who have been charged with murder. Choose any *one* of the studies from the list below and answer the questions which follow.

Haney, Banks and Zimbardo (prison simulation)
Milgram (obedience)
Raine, Buchsbaum and LaCasse (brain scans)

(a) Describe the sample of your chosen study and say how the participants were selected.

Most likely answers (any appropriate answer receives credit):
Haney: newspaper advert; payment $15 per day; screened using questionnaires and 24 selected. Randomly allocated prisoner and guard. All students, male and mainly white from USA.
Milgram: participants aged 20–50 years responded to newspaper advert and direct mailing. Represent wide range of occupations. Paid $4.50 for participating. 40 males selected.
Raine: 41 NGRIs 39 male and 2 female. 14 were black, 27 were white. Mean age: 34.3 years. Reasons for referral were: 6 schizophrenia, 23 head injury, 3 psychoactive substance abuse, 2 affective disorder, 2 epilepsy, 3 hyperactivity and learning disability, 2 paranoid personality disorder. Controls matched on age 31.7 years, gender and schizophrenia. None of these people had any history of or convictions for violent behaviour.

No answer or incorrect answer. (0)
Anecdotal evidence, general statements, minimal detail, minimal focus. (1–3)
Appropriate aspects identified. Description shows some understanding. Some detail and expansion of appropriate aspects though with omission of detail or lack of clarity (comment with some comprehension). (4–6)
Appropriate aspects identified and described in good detail. Description has clarity, is focused and well expressed. (7–10)
[max 10]

(b) Outline the main findings of your chosen study.

Most likely answers (any appropriate answer receives credit):
Haney: situational rather than dispositional explanation; events: e.g. planned escape. Release of prisoners after 36 hrs and stopping study after 6 days. Behaviour of guards with examples: pathology of power. Behaviour of prisoners: powerlessness, emasculation, etc.: pathological prisoner syndrome.
Milgram: participants obeyed authority. Differed from what expected. Specific numbers could be given: no one stopped before 300 volts. 14 stopped between 300 and 374 and 26 went to 450 volts. Also found signs of extreme tension.
Raine: NGRIs, compared to controls:

- had lower glucose metabolism in prefrontal, parietal areas and corpus callosum.
- no difference in temporal areas. Higher in occipital.
- greater activity on right in thalamus.
- amygdala and hippocampus: less activity in the left and more activity in the right.
- cingulate, Caudate, Putamen, Globus Pallidus, Midbrain and cerebellum – no significant differences.

No answer or incorrect answer. (0)
Anecdotal evidence, general statements, minimal detail, minimal focus. (1–3)
Appropriate aspects identified. Description shows some understanding. Some detail and expansion of appropriate aspects though with omission of detail or lack of clarity (comment with some comprehension). (4–6)
Appropriate aspects identified and described in good detail. Description has clarity, is focused and well expressed. (7–10)
[max 10]

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(c) Using your chosen study as an example, what are the advantages and disadvantages of using restricted samples of participants in psychological studies?

Most likely answers (any appropriate answer receives credit):
Advantage: participants may be available and willing. E.g. may be students (course credits) or may be volunteers (paid).
Advantage: may be more likely to do unethical things without question.
Advantage: may be limited numbers and type e.g. male; can be used as pilot study before generalising; can stimulate further research.
Disadvantage: more likely to conform/consent/show demand characteristics if they are paid/ receive course credits/will get off murder!
Disadvantage: cannot generalise to other groups the restricted sample does not represent.
Disadvantage: it is reductionist in that the sample may never be isolated in such a way from real life.

No answer or incorrect answer. (0)
Anecdotal description, brief detail, minimal focus. Very limited range. Description may be inaccurate, incomplete or muddled. (1–3)
Advantages and disadvantages which are focused on the question, are psychologically informed, but lack detail, elaboration or example. (4–5)
Advantages and disadvantages which are focused on the question and are psychologically informed. There is reasonable detail with some elaboration or examples. Discussion becoming clear and shows some understanding.
Half marks for advantages or disadvantages only. (6–7)
Range of advantages and disadvantages (2 + 2 or more) which are focused on the question and are psychologically informed. There is good detail with elaboration and examples. Discussion is good and shows understanding.
Half marks for advantages or disadvantages only. (8–10)
[max 10]

(d) Suggest a different sample for your chosen study and say what effect, if any, this would have on the results.

No answer or incorrect answer. (0)
Anecdotal suggestion, brief detail, minimal reference to question.
Description may be inaccurate, incomplete or muddled. (1–3)
An appropriate suggestion which is focused on question.
Description shows some understanding.
Some detail and expansion of aspects, with consideration of effect on results.
Max mark of 6 if effect on results not considered. (4–6)
An appropriate suggestion which is focused on question.
Description is detailed with good understanding and clear expression.
The changes are well considered and reflect understanding of the area in question.
Consideration of effect on results is appropriate. (7–10)
[max 10]

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17 Self report measures usually involve obtaining data from participants either by interview or by questionnaire and sometimes a combination of both. Choose any *one* of the studies from the list below and answer the questions which follow.

Hraba and Grant (doll choice)
Freud (little Hans)
Hodges and Tizard (social relationships)

(a) Describe the self report measures used in your chosen study.

Most likely answers (any appropriate answer receives credit):
Hraba: children given 8 questions to determine racial awareness, identification and preference. Use of 4 dolls identically dressed. Children forced to choose a doll in response to the question.
Freud: conversations between Hans and his father and then father with Freud.
Hodges: children interviewed and mother interviewed.

No answer or incorrect answer. (0)
Anecdotal evidence, general statements, minimal detail, minimal focus. (1–3)
Appropriate aspects identified. Description shows some understanding. Some detail and expansion of appropriate aspects though with omission of detail or lack of clarity (comment with some comprehension). (4–6)
Appropriate aspects identified and described in good detail. Description has clarity, is focused and well expressed. (7–10)
[max 10]

(b) Outline the main findings of your chosen study.

Most likely answers (any appropriate answer receives credit):
Hraba: 1939 and 1969: white children preferred white dolls on both occasions. In 1939 black children had negative self image and preferred white dolls. In 1969 this perception had changed.
Freud: findings support theory: Hans in phallic stage and Oedipus complex. Evidence of this credited as findings e.g. giraffe episode etc.
Hodges: ex-institutional more adult oriented, do not have special friend, etc.

No answer or incorrect answer. (0)
Anecdotal evidence, general statements, minimal detail, minimal focus. (1–3)
Appropriate aspects identified. Description shows some understanding. Some detail and expansion of appropriate aspects though with omission of detail or lack of clarity (comment with some comprehension). (4–6)
Appropriate aspects identified and described in good detail. Description has clarity, is focused and well expressed. (7–10)
[max 10]

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(c) Using your chosen study as an example, what are the advantages and disadvantages of using self report measures?

Most likely answers (any appropriate answer receives credit):
Advantage – participants are given the opportunity to express a range of feelings and to explain their behaviour.
Advantage – may be the only way to access people's attitudes and emotions i.e. non-observable phenomena.
Advantage – the data obtained may be 'rich' and often very detailed. Data is often qualitative. But may also be quantitative depending on the type of question.
Advantage – relatively large numbers of participants can be done relatively quickly.
Disadvantage – data may be unique and not comparable to that of others.
Disadvantage – participants may provide socially desirable responses; not give truthful answers.
Disadvantage – researchers have to be careful about use of leading questions; this could affect the validity of the data collected.
Disadvantage – participants may respond to demand characteristics.

No answer or incorrect answer. (0)
Anecdotal description, brief detail, minimal focus. Very limited range. Description may be inaccurate, incomplete or muddled. (1–3)
Advantages and disadvantages which are focused on the question, are psychologically informed, but lack detail, elaboration or example. (4–5)
Advantages and disadvantages which are focused on the question and are psychologically informed. There is reasonable detail with some elaboration or examples. Discussion becoming clear and shows some understanding.
Half marks for advantages or disadvantages only. (6–7)
Range of advantages and disadvantages (2 + 2 or more) which are focused on the question and are psychologically informed. There is good detail with elaboration and examples. Discussion is good and shows understanding.
Half marks for advantages or disadvantages only. (8–10)
[max 10]

(d) Suggest a different method for your chosen study and say what effect, if any, this would have on the results.

No answer or incorrect answer. (0)
Anecdotal suggestion, brief detail, minimal reference to question.
Description may be inaccurate, incomplete or muddled. (1–3)
An appropriate suggestion which is focused on question.
Description shows some understanding.
Some detail and expansion of aspects, with consideration of effect on results.
Max mark of 6 if effect on results not considered. (4–6)
An appropriate suggestion which is focused on question.
Description is detailed with good understanding and clear expression.
The changes are well considered and reflect understanding of the area in question.
Consideration of effect on results is appropriate. (7–10)
[max 10]

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