UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

GCE Advanced Subsidiary Level and GCE Advanced Level

MARK SCHEME for the May/June 2011 question paper

for the guidance of teachers

9698 PSYCHOLOGY

9698/13 Paper 1 (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.

Mark schemes must be read in conjunction with the question papers and the report on the examination.

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Section A

1 The study on eyewitness testimony by Loftus and Palmer looked at the effect of leading questions on estimations of speed.

(a) What is a leading question? [2]

Quote from study: "A leading question is simply one that, either by its form or content, suggests to the witness what answer is desired or leads him to the desired answer."

1 mark partial (e.g. example only), 2 marks expansion.

(b) What was the effect of leading questions on the estimations of speed? [2]

Most likely:
Leading questions led to different speed estimates in mph depending on the verb used: smashed 40.8, collided 39.3, bumped 38.1, hit 34.0, contacted 31.8.

1 mark partial, 2 marks expansion.

2 From the review by Deregowski on picture perception:

(a) Briefly describe the anecdotal evidence by Robert Laws. [2]

Quote from article:
Robert Laws, a Scottish missionary active in Nyasaland (now Malawi) at the end of the 19th century, reported: "Take a picture in black and white and the natives cannot see it. You may tell the natives, 'This is a picture of an ox and a dog: and the people will look at it and look at you and that look says that they consider you a liar. Perhaps you say again, 'Yes, this is a picture of an ox and a dog.' Well, perhaps they will tell you what they think this time. If there are a few boys about, you say: 'This is really a picture of an ox and a dog. Look at the horn of the ox, and there is his tail!' And the boy will say: 'Oh! yes and there is the 'dog's nose and eyes and ears!' Then the old people will look again and clap their hands and say, 'Oh! yes, it is a dog.' When a man has seen a picture for the first time, his book education has begun."

1 mark partial, 2 marks expansion. Any other anecdote 0 marks.

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

Most likely:
- Could be 'made up' story; not objective/scientific.
- Interpreter may have bias towards their own culture (ethnocentric).
- May misinterpret due to language differences.

1 mark partial, 2 marks expansion.

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

(a) Describe what was found when the different groups of children were asked the belief question. [2]

1 mark for most autistic children could not answer the belief question correctly.
1 mark for most Down's syndrome and most 'normal' children could answer the belief question correctly.
1 mark for each correct answer.

(b) Suggest an explanation for these findings. [2]

Most likely:
- Down's Syndrome and the 'normal' children had a theory of mind.
- Autistic children do not have a theory of mind.

1 mark for reason why autistic children cannot answer the question and 1 mark for reference to 'non' autistic children.

4 From the study by Samuel and Bryant on conservation:

(a) Describe the sample of participants. [2]

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.

(b) Suggest <u>two</u> reasons why the participants in the study could not give informed consent. [2]

Most likely:
- If they were fully informed they would not understand.
- They were too young to give informed consent.
- They would not be asked. The classroom teacher would give consent.
- Giving consent informs them about the purpose of the study.

1 mark for each reason.

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5 The study by Bandura, Ross and Ross on the imitation of aggression used a number of experimental controls.

(a) Identify <u>two</u> variables that were controlled. [1 + 1]

Most likely answers:
- Pre-existing levels of aggression.
- Numbers of participants in each group.
- Procedure of model, mild aggression arousal and test room.
- Toys in each room and placement of toys in each room.
- Any appropriate control to receive credit.

1 mark for each appropriate control.

(b) Why do psychologists want to control variables? [2]

Most likely:
Manipulate IV, control variables and observe DV: cause and effect more likely.

1 mark partial, 2 marks expansion.

6 Schachter and Singer conducted an experiment on emotion:

(a) What is an independent groups design? [2]

Most likely:
An independent groups design is where each *participant* performs in a different condition of the independent variable.

1 mark partial (very basic answer), 2 marks for simple statement.

(b) Suggest <u>one</u> reason why an independent groups design was used in this study. [2]

Most likely:
- It could not be repeated measures: a participant could not receive the same injection and be given different information.
- If a participant was in the same group, they could not do the euphoric condition and then the angry condition.
- If a participant repeated any part of the study they would be suspicious and the study would be confounded.

1 mark partial, 2 marks expansion.

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7 The study by Sperry on split brain patients involved a number of tests.

(a) Identify <u>two</u> different tests conducted by Sperry. [2]

Most likely:
- Vision and Memory (has it been seen before).
- Vision and Speech (can it be named).
- Vision and Writing (draw what is seen).
- 3 different stereognostic tests (objects put in different hands).
- Test of olfaction.

NB descriptions are acceptable even if the test name is not identified.

1 mark for each correct identification up to 2 max.

(b) Outline <u>one</u> finding that was common to all split brain patients. [2]

Most likely:
- They could name objects presented to the right visual field.
- They could not remember objects that were presented to the opposite visual field.
- Quote: these patients behave in many ways as if they have two independent streams of conscious awareness, one in each hemisphere, each of which is cut off from and out of contact with the mental experiences of the other.
- Any other appropriate answer.

Incorrect: language functions are located in the left hemisphere as this is common in all people.

1 mark partial, 2 marks expansion.

8 The study by Raine, Buchsbaum and LaCasse on brain scans matched the murderers with a control group.

(a) Identify <u>two</u> features that were similar between the two groups of participants. [1 + 1]

- There were 41 murderers and 41 control participants.
- There were 39 men and 2 women in each group.
- There were 6 schizophrenics in each group.
- Mean ages were similar: 34.3 for murderers and 31.7 for the controls (can be difference).
- Similarities in results between the two groups are acceptable.

1 mark for each correct feature. 1 mark if just "age and sex" without elaboration.

(b) Identify <u>two</u> features that were different between the two groups of participants. [1 + 1]

- There were murderers and controls who had not murdered.
- The murderers were claiming they were not guilty for reasons of insanity. The controls were not claiming this as they had not murdered.
- Murderers had various problems: head injury, affective disorder, epilepsy, etc. Controls had no such brain disorders.
- Mean ages were different: 34.3 for murderers and 31.7 for the controls (can be similarity).
- Differences in results between the two groups are acceptable.

1 mark for each correct feature.

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9 The study by Milgram on obedience to authority recruited participants through a newspaper advertisement.

(a) Suggest <u>one</u> advantage of recruiting participants through newspaper advertisements. [2]

Most likely:
- Target population wider and larger than, say, student sample.
- Potentially wide range of respondents: age, occupation, etc.
- Wording of advert can attract particular features or characteristics.

NB answer does not need to be related to this study.

1 mark partial; 2 marks expansion.

(b) Suggest <u>one</u> disadvantage of recruiting participants through newspaper advertisements. [2]

Most likely:
- May not be representative of wider population.
- Targets only those reading that particular newspaper.
- Those replying, volunteers, may possess particular characteristics.
- The sample will not include those who will not reply to a newspaper advertisement.
- May not get enough participants: Milgram also used 'direct solicitation'.

NB answer does not need to be related to this study.

1 mark partial, 2 marks full.

10 From the study by Haney, Banks and Zimbardo (prison simulation):

(a) Outline <u>one</u> finding that can be generalised. [2]

Most likely:
- The state of prisons is due to the situation rather than the disposition of individuals.
- People adopt the role they are given and often internalise it (maybe take it to an extreme).
- Prisoners will adopt a submissive role and suffer stress, depersonalisation, etc.
- Guards will adopt an authoritative role and enjoy their role of power.

1 mark partial/identification, 2 marks expansion.

(b) What is a generalisation? [2]

Most likely:
A generalisation is where a 'psychological ability' applies to most people most of the time.

1 mark partial, 2 marks expansion (e.g. to whom it applies).

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11 In the study by Piliavin, Rodin and Piliavin on subway Samaritans.

(a) Describe <u>one</u> of the categories of behaviour that was observed and say what was found. [1 + 1]

Most likely:
- Frequency of helping: spontaneous helping given 62/65 for ill and 19/38 for drunk.
- Speed of helping: median helping time 5 secs for ill, 109 secs for drunk.
- Race of helper: 45% black and 55% white for ill. Same race helping for drunk.
- Sex of helper; men much more likely to help than women.

1 mark for category, 1 mark for what was found (even if no category identified).

(b) Suggest <u>one</u> way in which the reliability of any observation can be checked. [2]

Most likely:
The reliability of an observation can be checked by having two or more observers observe the same event. Data can then be compared and correlated to determine level of agreement.

1 mark partial (e.g. two or more observers), 2 marks expansion.

12 In the study by Tajfel on intergroup categorisation:

(a) Outline <u>two</u> ways in which the participants were deceived. [2]

Most likely:
- The boys thought they were put into groups on the basis of over-estimating or under-estimating dots or artistic preference.
- They were told that it was a study on visual judgements.
- Any other appropriate aspect to receive credit.

1 mark for each correct answer.

(b) Give <u>one</u> advantage of deceiving participants. [2]

Most likely:
The participants are not harmed by any deception.
The knowledge gained may be valuable and well worth it; ends justify means.
Participants behave naively – they do not know the true nature of the study, behave more naturally and will not show demand characteristics.

1 mark partial, 2 marks expansion.

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13 Gould reviewed work on intelligence testing conducted in the United States of America in the early 1900s.

(a) What is a review of studies? [2]

Most likely:
In terms of scientific literature, reviews are a category of scientific paper, which provides a synthesis of research on a topic at that moment in time.

1 mark partial definition, 2 marks expansion.

(b) Give <u>one</u> advantage and <u>one</u> disadvantage of a review. [2]

Most likely:
Advantages:
No experiments are actually performed.
Can be done in a library.
Can review many works, drawing overall conclusions, making generalisations.
Any other appropriate point to receive credit.
Disadvantages:
No experiments performed; no 'first hand evidence'.
May include biases, misinterpretations, false generalisations.
Any other appropriate point to receive credit.

1 mark advantage and 1 mark disadvantage.

14 The study by Hraba and Grant (doll choice) was based on Clark and Clark (1939).

(a) What were the three categories of skin colour used by Clark and Clark? [2]

Quote from article:
"The Clarks classified their subjects by skin colour into three categories: light (practically white), medium (light brown to dark brown), and dark (dark brown to black). The interviewers in our study used the same criteria."

1 mark black and white, 2 marks for correct answer.

(b) What was found by Clark and Clark in relation to skin colour and what was found by Hraba and Grant in relation to skin colour? [1 + 1]

"The Clarks found that the children of light skin colour showed the greatest preference for the white doll and the dark children the least." [1 mark]
"We [Hraba & Grant] did not find this trend. The children of light skin colour were at least as strong in their preference for a black doll as the others." [1 mark]
Also credit: Clark & Clark found black children preferred white dolls; Hraba & Grant found black children preferred their own colour.

1 mark partial, 2 marks expansion.

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15 From the study by Rosenhan on sane in insane places:

(a) Suggest <u>two</u> ways in which the study was true to real life. [1 + 1]

Most likely:
- The study took place in real mental institutions.
- The study involved real psychiatrists and nurses.
- Life on the ward was as it would be in everyday life.
- Any other appropriate aspect to receive credit.

1 mark for each correct answer.

(b) Suggest <u>two</u> ways in which the study was <u>not</u> true to real life. [1 + 1]

Most likely:
- Those seeking admission were not genuine patients, they were pseudo-patients.
- The pseudo-patients claimed they were hearing voices.
- In study 2 Rosenhan said he would send more pseudo-patients.
- Any other appropriate aspect to receive credit.

1 mark for each correct answer.

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Section B

16 Some studies in psychology gather both quantitative and qualitative data. Choose any <u>one</u> of the studies from the list below and answer the questions which follow.

Schachter and Singer (emotion)
Hodges and Tizard (social relationships)
Dement and Kleitman (sleep and dreaming)

(a) Outline the procedure of your chosen study. [10]

Schachter: all participants receive injection. Participants in one of 4 conditions: EPI INF, EPI MIS, EPI IGN and control. Participants experience stooge and angry or euphoric conditions. Data collected by questionnaire and observation.
Hodges: children either ex-institutional or comparison and restored or adopted. Development tracked. At 16 years tested via interviews and questionnaires. The parent completed the 'A' scale questionnaire (Rutter, 1970) on the adolescent's behaviour. The Rutter B scale was given to teachers.
Dement: electrodes attached, participants woken during REM and asked to recall dream. Several variations involving estimated length of dream and words used.

No answer or incorrect answer. [0]

Anecdotal evidence, general statements, minimal detail, minimal focus. [1–3]

Attempt to outline some of the main aspects though with omission of detail or lack of clarity (comment with some comprehension). [4–6]

Main aspects identified and described in good detail. Description is clear, focused and well expressed. [7–10]

[max 10]

(b) Describe the quantitative and qualitative results of your chosen study. [10]

Schachter: quantitative: observations through one-way mirror; qualitative: self report questionnaires. The EPI IGN and EPI MIS copied the behaviour of the stooge. The EPI INF and control groups did not.
Hodges: all the ex-institutional children: were more 'adult orientated'; less likely to have a special friend; less likely to turn to peers for support.
Dement: 152 participants report dream from REM, 39 do not; 11 dream in NREM, 149 no dream from NREM. Also significant correlations between REM duration and number of words in dream narrative. Also 45 of those woken after 5 mins said 5 mins but 6 said 15 mins; 47 woken after 15 mins said 15 mins, 13 said 5 mins.

No answer or incorrect answer. [0]

Anecdotal description, brief detail, minimal focus. [1–3]

Appropriate aspects identified. Description shows some understanding. Some detail and expansion. [4–6]

Appropriate aspects described. Description is clear, has good understanding, is focused and well expressed. Good detail and fully explained. [7–10]

[max 10]

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(c) Using your chosen study as an example, what are the strengths and weaknesses of <u>qualitative</u> data? [10]

Indicative content: most likely answers (any appropriate answer receives credit):
Advantages:
Can give in depth, rich in detail, insightful and therefore not reductionist.
Can help us understand **why** people behave in a particular way.
Disadvantages:
May be problems of interpretation. Words and descriptions are more subjective than numbers and are more open to bias and misinterpretation by participants.
Often cannot make statistical comparisons.
May be more prone to researcher bias as can select the information that best fits hypothesis.
Participants may give socially desirable answers. Participants want to look good.

No answer or incorrect answer. [0]

Anecdotal description, brief detail, minimal focus. Very limited range. Description may be inaccurate, incomplete or muddled. [1–3]

Strengths and weaknesses which are focused on the question, are psychologically informed, but lack detail, elaboration or example. [4–5]

Strengths and weaknesses 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 strengths and weaknesses (4 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 way of gathering data for your chosen study and say what effect, if any, this would have on the results. [10]

No answer or incorrect answer. [0]

Anecdotal suggestion, brief detail, minimal reference to question.
Description may be inaccurate, incomplete or muddled.
There may be no reference to effect on results. [1–3]

Appropriate suggestion(s) which is/are focused on question. Description shows some understanding.
Some detail and expansion of aspects, with some consideration of effect on results.
Max mark of 6 if no effect on results. [4–6]

Appropriate suggestion/range of, which is/are 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 A number of core studies use the case study method which collects detailed information about a participant. Choose any <u>one</u> of the studies from the list below and answer the questions which follow.

Gardner and Gardner (project Washoe)
Freud (little Hans)
Thigpen and Cleckley (multiple personality disorder)

(a) Describe the main findings of your chosen study. [10]

Gardner: number of signs e.g. 28 signs by 22nd month. Details of differentiation, creativity, generalisation, etc.
Freud: findings support theory: Hans in phallic stage and Oedipus complex. Evidence of this credited as findings e.g. giraffe episode etc.
Thigpen: IQ test: [white 110; black 104]; Wechsler memory test [black= same as IQ; white = far above IQ]; projective: repression in Eve White; regression in Eve Black. The **Rorschach** record of Miss Black is by far healthier than that of Mrs White. Miss Black has a hysterical tendency, while Mrs White's shows anxiety, obsessive-compulsive traits, rigidity and an inability to deal with her hostility.

No answer or incorrect answer. [0]

Anecdotal evidence, general statements, minimal detail, minimal focus. [1–3]

Attempt to outline some of the main aspects though with omission of detail or lack of clarity (comment with some comprehension). [4–6]

Main aspects identified and described in good detail. Description is clear, focused and well expressed. [7–10]

[max 10]

(b) Describe how the case study was carried out in your chosen study. [10]

Gardner: Washoe captured from jungle. Taken to Gardner household. Made to behave like human infant.
Freud: observations of Hans and conversations with Hans conducted by Hans' father and sent to Freud via letter.
Thigpen: use of many methods to gather data: over 100 hours of interviews, also hypnosis, psychometric and projective tests.

No answer or incorrect answer. [0]

Anecdotal description, brief detail, minimal focus. [1–3]

Appropriate aspects identified. Description shows some understanding. Some detail and expansion. [4–6]

Appropriate aspects described. Description is clear, has good understanding, is focused and well expressed. Good detail and fully explained. [7–10]

[max 10]

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(c) Using your chosen study as an example, what are the strengths and weaknesses of the case study method? [10]

Most likely answers (any appropriate answer receives credit):
Strength:
Richness and detail of the data gathered. Often longitudinal.
Ecological validity: participant studied as part of everyday life.
Rare or unique behaviours can be studied in detail.
Sample *may* be self selecting; not chosen by researchers.
Weakness:
May be only one participant (or very few) so cannot generalise to others.
Participant may be unique, possibly 'not normal'. Researchers may not know how to proceed; may draw false conclusions.
Researchers may become emotionally attached if only one participant studied over time.

No answer or incorrect answer. [0]

Anecdotal description, brief detail, minimal focus. Very limited range. Description may be inaccurate, incomplete or muddled. [1–3]

Strengths and weaknesses which are focused on the question, are psychologically informed, but lack detail, elaboration or example. [4–5]

Strengths and weaknesses 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 strengths and weaknesses (4 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 how <u>one</u> other method could be used to investigate your chosen study and say how this would affect the results of the study. [10]

No answer or incorrect answer. [0]

Anecdotal suggestion, brief detail, minimal reference to question.
Description may be inaccurate, incomplete or muddled.
There may be no reference to effect on results. [1–3]

Appropriate suggestion(s) which is/are focused on question. Description shows some understanding.
Some detail and expansion of aspects, with some consideration of effect on results.
Max mark of 6 if no effect on results. [4–6]

Appropriate suggestion/range of, which is/are 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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