UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

GCE Advanced Subsidiary Level and GCE Advanced Level

MARK SCHEME for the October/November 2011 question paper for the guidance of teachers

9698 PSYCHOLOGY

9698/11 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.

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Section A (60 marks)

Answer all the questions in this section.

1 In the first experiment on eyewitness testimony by Loftus and Palmer:

(a) What were the conditions of the independent variable? [2]

There were five conditions of the independent variable: smashed, collided, bumped, hit and contacted.

1 mark partial (e.g. verb), 2 marks expansion (e.g. two or more verbs correctly identified).

(b) What was the dependent variable? [2]

The dependent variable was the estimation of speed in miles per hour.

1 mark partial (e.g. one feature, such as speed), 2 marks for two or more features (e.g. estimation, speed, mph).

2 Deregowski conducted a review of studies on picture perception.

(a) What is a cross-cultural study? [2]

Most likely:
Where psychological phenomena are compared in people from more than one cultural background.

1 mark partial definition, 2 marks expansion (e.g. includes word 'comparison' or is related to study or an example).

(b) Describe the findings of one study included in the Deregowski review. [2]

Most likely:
Anecdotal: Robert Laws, Mrs Fraser and 'other reports' found cultural differences in the perception of pictures.

Empirical: all the studies by Hudson (cube, two-pronged trident) found cultural differences in the perception of pictures.

1 mark partial (basic finding), 2 marks full (finding described).

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3 Using evidence from the table, describe <u>two</u> conclusions. [4]

	'normal' children	Down's syndrome children	autistic children
Percentage (%) correct answers			
Naming question	100	100	100
Memory question	100	100	100
Reality question	100	100	100
Belief question	85	86	20

Any **two** conclusions to receive credit:

- All children answered the **naming** question correctly/100% correct for 'normal', autistic and Down's syndrome children.
- All children answered the **memory** question correctly/100% correct for 'normal', autistic and Down's syndrome children.
- All children answered the **reality** question correctly/100% correct for 'normal', autistic and Down's syndrome children.
- Most autistic children answered the belief question incorrectly/most 'normal' and Down's syndrome children answered the belief question correctly.
- Autistic children do not have a theory of mind/20% of autistic children answered the belief question incorrectly whereas 85 and 86% of 'normal' and Down's syndrome children answered the belief question correctly.
- Any other appropriate conclusion to receive credit.

1 mark for first part plus 1 mark for second part.

4 From the study by Samuel and Bryant on conservation:

(a) Suggest <u>two</u> generalisations that can be drawn from the findings. [2]

Most likely:
- Conservation ability improves as age increases.
- Asking only one question does not confuse children/asking two questions confuses children.
- Children conserve number and mass before volume.
- Any appropriate generalisation to receive credit.

1 mark for each appropriate generalisation.

(b) Suggest <u>one</u> implication that the findings have for teachers. [2]

Most likely:
- Teachers should only teach particular things at particular ages.
- Teachers should not ask the same question twice.

1 mark partial, 2 marks elaboration.

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5 From the study by Bandura, Ross and Ross on aggression:

(a) Identify <u>two</u> items of equipment needed to conduct the study in the aggressive model condition. [2]

Most likely:
A 5-foot bobo doll, a mallet, a table and chair, a tinker toy set.

1 mark for identification of any piece of equipment up to 2 max.

(b) Identify <u>two</u> different items used to test the children in the observation room. [2]

Most likely:
A 3-foot bobo doll; a mallet and peg board; two dart guns (a dart gun); a tetherball with a face painted on it. Also from the non-aggressive condition: a tea set; three bears; cars and trucks; plastic farm animals; a ball; crayons and colouring paper.

NB 'aggressive toy' instead of 'mallet' or 'dart gun' to be credited.

1 mark for identification of each piece of equipment up to 2 max. 0 marks for 'toy'.

6 (a) Outline <u>two</u> features of little Hans' everyday environment in the study by Freud. [2]

Most likely:
- Little Hans was in his own home.
- Hans would do everyday features of normal life: eat, sleep, etc.
- Hans would have around him his family: mother, father, sister, maid (and Dr A).
- Any appropriate feature to receive credit.

1 mark for each appropriate feature up to 2 max.

(b) Suggest <u>one</u> feature that may be an advantage for little Hans but a disadvantage for Freud. [2]

Most likely:
- Freud was not part of the normal everyday environment and any visit to the house could create demand characteristics.
- Freud could only talk to the father so information was not first-hand and may contain biases.
- Any appropriate feature to receive credit.

1 mark for appropriate feature for Hans and 1 mark for same feature for Freud.

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7 The study by Schachter and Singer on emotion involved gathering different types of data.

(a) Give an example of the observation data that was gathered for the anger condition. [2]

Observational data was recorded in the following response categories:
Category 1: Agrees (Score of +2, e.g. I don't like that type of personal question either)
Category 2: Disagrees (Score of -2)
Category 3: Neutral (Score of 0)
Category 4: Initiates agreement or disagreement (+2 or -2, e.g. I'm enjoying this)
Category 5: Watches (Score of 0)
Category 6: Ignores (Score of -1)

1 mark partial (e.g. some aspect of a category), 2 marks elaboration (e.g. details of category, scoring or question).

(b) Give an example of the self report data that was gathered for the anger condition. [2]

Participants were asked the question:

1 How irritated, angry or annoyed would you say you feel at present?

I don't feel at all irritated or angry.	I feel a little irritated and angry.	I feel quite irritated and angry.	I feel very irritated and angry.	I feel extremely irritated and angry.
(0)	(1)	(2)	(3)	(4)

Three other closed questions were also asked:
How good or happy would you say you feel at present?
Have you experienced any palpitations?
Did you feel any tremors?
Participants were also asked open-ended questions about physical and emotional sensations.

1 mark partial (e.g. some aspect of a question), 2 marks elaboration (e.g. aspects of question, or scoring).

8 From the study by Dement and Kleitman on sleep and dreaming:

(a) Outline <u>one</u> way in which the self report method was used. [2]

The self report method was used when the participant was awakened by the door bell and they had to state into a tape recorder whether they had been dreaming or not, and if they had been dreaming, they had to recall the content of the dream. The self report could also involve an estimate of how long they had been dreaming for.

1 mark partial, 2 marks elaboration.

(b) Outline <u>one</u> way in which the observation method was used. [2]

Participants sleep in laboratory. Observers watch EEG and when participant is in REM or NREM they wake up the participant. Also vertical, horizontal etc. eye movements observed.

1 mark partial, 2 marks elaboration.

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9 In the study by Raine, Buchsbaum and LaCasse on brain scans:

(a) Why were the participants asked to remain medication free for two weeks before the scan? [2]

Any participant taking medication may produce an abnormal scan and so confound the result of the study.
Not taking medication is a control and so it is standardised for each participant.

1 mark partial, 2 marks elaboration (addresses *why*).

(b) How did Raine, Buchsbaum and LaCasse check to see if the murderers were medication free? [2]

Most likely:
Urine samples were taken at the same time as the PET scans to ensure that every murderer referred for the study was medication free.

1 mark partial, 2 marks elaboration.

10 From the study by Milgram on obedience to authority:

(a) Identify <u>two</u> features of the experimenter that may have led to obedience. [2]

Most likely:
Specific features:
- The experimenter wore a grey laboratory coat to make the study appear more scientific.
- His manner was impassive and he was stern throughout.

Behavioural features:
- He tried to prevent withdrawal from the study by giving verbal prods.
- He paid the participants.
- Any appropriate feature (specific or behavioural) to receive credit.

1 mark for each feature up to 2 max.

(b) Identify <u>two</u> features of the setting that may have led to obedience. [2]

Most likely:
- It was done at Yale University.
- It was done in a laboratory using scientific equipment.
- The shock generator appeared to be real.
- Teacher and learner in different room, so not face-to-face.
- Any appropriate feature to receive credit.

1 mark for each feature up to 2 max.

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11 In the study by Haney, Banks and Zimbardo (prison simulation) the participants went through an induction procedure.

(a) Identify <u>two</u> features of the induction procedure that were true to real life. [2]

Most likely:
- arrested at home by 'real' police;
- charged with suspicion of burglary/armed robbery and read rights;
- were handcuffed and searched;
- were driven off in police car;
- on arrival were stripped, given uniform and number;
- any appropriate feature to receive credit.

1 mark for identification of each feature up to 2 max.

(b) Identify <u>two</u> features of the induction procedure that were <u>not</u> true to real life. [2]

Most likely:
- deloused;
- wearing of smock and no underwear;
- stocking cap;
- chain attached to ankle;
- it wasn't a real prison;
- any appropriate feature to receive credit.

1 mark for identification of each feature up to 2 max.

12 From the study by Piliavin, Rodin and Piliavin on subway Samaritans:

(a) Briefly describe the quantitative results of the experiment. [2]

Most likely:
- Frequency of helping: help given spontaneously 62 times out of 65 for ill and 19 times out of 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 partial (vague statement), 2 marks for elaboration (one in detail or two briefly).

(b) Suggest <u>one</u> disadvantage of quantitative results. [2]

- heavy reliance on numbers taken in snapshot study;
- does not gain information on *why* people behave the way they do – no explanation;
- often snapshot and no in-depth, rich detail or insight;
- any appropriate feature to receive credit.

1 mark partial suggestion, 2 marks expansion.

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13 The study by Hraba and Grant on doll choice found that '23 black and 20 white children made choices favourable to their own race on all four items measuring racial preference'.

(a) What was found out about these children in relation to their friends? [2]

Most likely:
The study found that there was no apparent relationship between the children's doll preference and the race of their friends. (1 mark).
Elaboration (1 mark):
However, 41% of all white children had all white friends.

(b) Suggest why Hraba and Grant looked at the relationship between children and their friends in addition to doll choice. [2]

Most likely:
- Doll choice is artificial (low ecological validity) and may be due to the demand characteristics of the experiment.
- Friends are what the children may have in real life, so this provides a check on the results of the experiment.

1 mark partial, 2 marks elaboration.

14 From the review by Gould on intelligence, three 'facts' resulted from the mass testing of army recruits.

(a) Outline <u>one</u> of the 'facts' from the testing. [2]

Any one from:
- average mental age of white American adults is moron at 13;
- European immigrants graded by country of origin;
- black at bottom, average mental age of 10.41.

1 mark partial, 2 marks expansion.

(b) Give <u>one</u> example of social control that followed the testing. [2]

Most likely:
- immigration restriction act of 1924 allowing 2% entry;
- first restriction act of 1921 allowing 3% entry from any nation;
- Jewish refugees and others during 1930s barred from entry.

1 mark partial, 2 marks expansion.

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15 From the study by Rosenhan (sane in insane places):

(a) Briefly describe how the pseudo-patients attempted to gain admission to the mental hospitals. [2]

Most likely:
- pseudo-patients telephoned for appointment;
- on arrival claimed they could hear voices: empty, etc.;
- voices were unfamiliar but of same sex as pseudo-patient;
- all other factors described truthfully.

1 mark for each of two features.

(b) Briefly describe what happened after the pseudo-patients were admitted to the mental hospitals. [2]

Pseudo-patients:
- were diagnosed as having schizophrenia in 11/12 cases;
- were admitted and placed on ward of institution;
- were detained for between 7 and 52 days;
- any other aspect of 'life on the ward' to be given credit as this is what happened after admittance.

1 mark partial, 2 marks elaboration.

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Section B (40 marks)

Answer either Question 16 or Question 17 in this section.

16 Psychological research is often carried out on a restricted sample of participants. Samples may be restricted because the participants are school children, because the children may have some disability or because participants have a split brain.

Choose any one of the studies from the list below and answer the questions which follow.

Tajfel (intergroup categorisation)
Baron-Cohen, Leslie and Frith (autism)
Sperry (split brain)

(a) Describe the sample of your chosen study and say how the participants were selected. [10]

Tajfel: All the participants were boys aged 14–15 years. There were 64 in experiment 1 and 48 in experiment 2. They were from a comprehensive school in Bristol.
Baron-Cohen:
20 autistics: MA 9.3, CA 11.11, IQ 82.
14 Down's syndrome: MA 5.11, CA 10.11, IQ 64.
27 'normal' children: MA 4.5, CA 4.5, IQ 100.
Sperry: All participants suffering from epilepsy. Self-selecting sample. All had commissurotomy. Mixture of male and females. 11 studied in total.

No answer or incorrect answer. [0]

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

Attempt to outline some of main aspects though with omission of detail or lack of clarity (comment with some comprehension). **NB** Max 6 marks if just sample or just selection process. [4–6]

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

[max 10]

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(b) Outline the main findings of your chosen study. [10]

Tajfel: Boys chose maximum difference rather than maximum joint profit or maximum in-group profit.
Baron-Cohen: Autistic children have no theory of mind. It is not related to age or development.
Sperry: Many studies show that in effect there are two minds in one body; that language function is located in the left hemisphere. Main: those presented with image to one half of visual field could only recognise it if it was presented to same visual field. If presented to opposite visual field, participants respond as if it has never been seen.

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]

(c) Using your chosen study as an example, what are the advantages and disadvantages of using restricted samples of participants in psychological studies? [10]

Most likely answers (any appropriate answer receives credit):
Advantages:
Allows control over extraneous variables – distractions, etc. Gives credibility to study.
Participants in laboratory volunteer – more likely to behave 'appropriately'.
Disadvantages:
In laboratory so demand characteristics more likely.
Study may be low in ecological validity.
Controlling too many variables is reductionist and not realistic.

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 (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]

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(d) Suggest a different sample 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 suggestions, 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]

17 Psychologists sometimes carry out longitudinal studies (where behaviour is observed over weeks, months or years). Other studies are carried out which are described as snapshot studies because they may take only minutes or hours to complete.

Choose any <u>one</u> of the studies from the list below and answer the questions which follow.

Hodges and Tizard (social relationships)
Gardner and Gardner (project Washoe)
Thigpen and Cleckley (multiple personality disorder)

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

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.
Gardner: Number of signs, e.g. 28 signs by 22nd month. Details of differentiation, creativity, generalisation, etc.
Thigpen: IQ test: [white 110, black 104]; Wechsler memory test [black = same as IQ; white = far above IQ].
Projective tests: 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 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]

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(b) Describe the procedure of your chosen study, explaining how it is a longitudinal study. [10]

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.
Gardner: Washoe captured from jungle. Taken to Gardner household. Made to behave like human infant. Washoe taught sign language for a number of years.
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. **NB** Max 6 marks if no explanation of how it is a longitudinal study. [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 advantages and disadvantages of using longitudinal studies in psychological research? [10]

Most likely answers (any appropriate answer receives credit):
Advantages:
The development of specific individuals is recorded – baseline recorded and changes over time (e.g. 5 or 16 years) in attitudes and behaviour can be measured.
A great deal of detailed data can be obtained. Often qualitative using self reports.
Same participant means individual differences (e.g. intelligence) are controlled.
Can see effects of ageing; perfect for studying development, both within childhood and beyond. Can see long-term effects of a 'treatment' or exposure to a particular situation.
Disadvantages:
Participant attrition – participants may drop out for a variety of reasons.
Once the study has started, changes to the design cannot be made.
Cross-generational – those from one generation cannot be compared with another generation due to the social conditions of society changing over time.
Experimenters may become emotionally attached to participants and this may bias the outcome or results of the study.

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 (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]

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(d) Suggest a different method 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 suggestions, 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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