UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

GCE Advanced Subsidiary Level and GCE Advanced Level

MARK SCHEME for the October/November 2010 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.

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

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UNIVERSITY of CAMBRIDGE
International Examinations

1 From the study by Deregowski:

(a) What generalisation can be made about the learning or inheritance of picture perception?

Most likely (but any appropriate answer to receive credit):
Picture perception is learned rather than inherited.

2 marks for 'bland' statement, but 1 mark if "perception is learned" with no mention of pictures. (2)

(b) Suggest <u>one</u> problem with making any generalisation.

Most likely:
A generalisation applies to most people, most of the time. It does not apply to all the people all of the time. Any example of any aspect of this statement related to the Deregowski study or any other, e.g. can't generalise because of a small sample size; all participants were from same area; because of anecdotal evidence, etc

1 mark partial, e.g. "it doesn't apply to all", 2 marks expansion, as 1 mark plus elaboration. (2) [4]

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

(a) Identify <u>two</u> pieces of equipment needed to conduct the study.

Any piece of equipment can be quoted here:
Doll Sally; doll Anne; basket; box; marble
Also possible, but less likely: questions to ask child; desk at which to sit.

1 mark for correct identification of each piece of equipment. (2)

(b) Suggest how it was known that the children understood the procedure.

Children were asked three control questions: naming question; reality question and memory question. If children could answer these correctly, then they understood the procedure.

1 mark partial suggestion, e.g. asked naming question; 2 marks expansion, e.g. asked naming question and child had to identify correctly Sally and Anne. (2) [4]

3 Gardner and Gardner claim that Washoe's use of 34 signs was stable by the 22nd month of their study. Name and describe <u>two</u> of these signs.

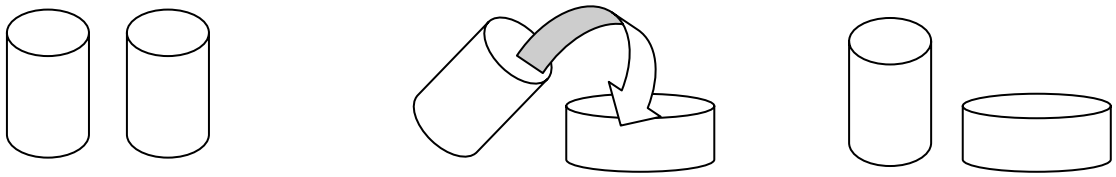
The table in the original article lists 34 signs, but Gardner and Gardner state "28 of the 34 signs were reported on at least 20 days" but do not say which these signs were. So, any of the 34 to receive credit. One example is:
Name: 'Come-gimme'. Description: beckoning motion, with wrist or knuckles as pivot.

1 mark naming, 2 marks description, twice. (2 + 2) [4]

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4 Samuel and Bryant conducted a study on the conservation of volume. This involved containers of liquid in the pre-transformation, the transformation and the post-transformation positions. Draw a labelled diagram to show the procedure for the conservation of volume.

Procedure for conservation of volume is as follows:



Pre-transformation Transformation Post-transformation

1 mark for each diagram of the three stages; 1 mark for correct labels (e.g. pre-transformation, transformation and post-transformation). [4]

5 The study by Hodges and Tizard on social relationships involved interviews with adolescents and interviews with mothers.

(a) Suggest <u>one</u> advantage of using interviews.

Most likely will be a statement of the obvious. Any reference to psychological knowledge scores the additional mark. 1 mark partial (e.g. to gather in-depth information), 2 marks elaboration. (2)

(b) Suggest why the adolescents gave different answers to some questions compared with their mothers' answers.

Most likely:
- the adolescent may be giving socially desirable answers (or telling the truth)
- the mother may be doing the same (or telling the truth)
- the adolescent may know what they actually do, or define things differently from mother
- the mother may not really know, or may have a different definition
- good example is whether the adolescent has a special/best friend or not

1 mark partial, 2 marks explanation. NB must mention adolescent AND mother for both marks. (2) [4]

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6 The study by Freud of little Hans was a longitudinal study.

(a) Give <u>one</u> reason why Freud's study of little Hans was a longitudinal study.

Most likely is statement of obvious:
- because it went on over a period of time (at least two years)
- study could not have been done in any other way (Freud could gather detailed data over a period of time)

1 mark reason and 1 mark for relating to study. (2)

(b) Give <u>one</u> disadvantage of any <u>other</u> longitudinal study.

Most likely:
Attrition: participants are likely to drop out of the study as time passes, e.g. the Hodges and Tizard study.
NB the 'other longitudinal study' does not need to be identified. 1 mark partial, 2 marks expansion. (2) [4]

7 The study by Schachter and Singer on emotion involved an angry or a euphoric stooge.

(a) Give <u>one</u> advantage of using a stooge in this study.

Most likely:
- a stooge keeps a participant naïve about the nature of the study (e.g. effects of adrenaline) and suggests to a participant how he or she may behave.
- without the stooge the study may not have been possible (i.e. to suggest anger or euphoria to the participant)

1 mark for advantage, however detailed, 2 marks for advantage that is related to this study. (2)

(b) Give <u>one</u> problem with the use of a stooge in psychological research.

Most likely:
Use of a stooge is unethical as it is deception. The participant thinks the stooge is another participant when the stooge has a specific brief and is working for the experimenter. Participants may behave in ways in which they would not normally. NB no need for an example.

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

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8 The study by Dement and Kleitman involved the reporting of dreams.

(a) Why were some reports not counted?

Most likely:
- Reports of dreams were only counted if the participant gave a coherent and fairly detailed description of the dream.
- Reports of dreaming were not counted if the participant could not recall the content or the description of the content was too vague.

1 mark partial, i.e. gist of above quote (e.g. was too vague), 2 marks expansion, i.e. clear understanding. (2)

(b) Why were the participants never informed on awakening whether or not their eyes had been moving?

If this had been done, the participants may have reported a false dream or no dream because of demand characteristics.

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

9 Sperry used the case study method to investigate split brain patients.

(a) Give <u>one</u> advantage of the case study method as used in this investigation.

Most likely advantages:
- richness and detail of the data gathered, often longitudinal
- ecological validity: participant may be studied as part of everyday life
- rare or unique behaviours can be studied in detail
- sample *may* be self-selecting

1 mark for advantage, however detailed, 2 marks for advantage that is related to this study. (2)

(b) Give <u>one</u> disadvantage of the case study method as used in this investigation.

Most likely disadvantages:
- may be only one participant (or very few) so cannot generalise to others
- participant(s) 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 (or a few) participant(s) studied over time

1 mark for disadvantage, however detailed, 2 marks for disadvantage related to this study. (2) [4]

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10 The subway Samaritan study by Piliavin, Rodin and Piliavin is a field experiment.

(a) In what way is a field experiment <u>similar</u> to a laboratory experiment?

Most likely:
- use of independent and dependent variables
- attempt to control as many extraneous variables as possible
- assume cause and effect

1 mark for comment in relation to ***either*** field ***or*** lab experiment; 2 marks for answer that refers to ***both*** lab and field experiment. NB does not need to relate to *this* study. (2)

(b) In what way is a field experiment <u>different</u> from a laboratory experiment?

Most likely:
- control of extraneous variables may not be as extensive as lab experiment
- gaining consent is less likely; participants may not know that they are in a study
- being 'in field' makes the study much more realistic and true to real life
- less likely that participants respond to demand characteristics

1 mark for comment in relation to ***either*** field ***or*** lab experiment; 2 marks for answer that refers to ***both*** lab and field experiment. NB does not need to relate to *this* study. (2) [4]

11 From the study by Tajfel (intergroup categorisation):

(a) Briefly describe the sample of participants in experiment two.

The participants were: boys, three groups of 16 (48 in total), aged 14–15 years, from a "state or 'comprehensive' school" in Bristol, UK , all in same house and form, all knew each other well.
NB in experiment 1 there were: 64 boys in 8 groups of 8, and not as above.

1 mark for each different feature, up to 2 marks max. (2)

(b) Give <u>one</u> advantage of using a restricted sample of participants.

Most likely:
- can be used as a pilot study before researching further
- can generalise from the group studied (the sample) to similar samples
- sample is often easy to obtain
- sample is often more malleable; perhaps main reason why that sample is chosen

1 mark for identification of advantage, 2 marks for expansion. (2) [4]

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12 All studies in psychology raise ethical issues. Outline <u>two</u> ethical issues in the study by Gould (intelligence testing).

Most likely:
- confidentiality: no recruit was named
- deception: recruits were deceived about true nature of test
- harm: recruits failing the unfair test could be sent to front lines
- consent: recruits gave consent to be tested, but not to be tested unfairly
- withdrawal: recruits did not have the right to withdraw or refuse the test

NB identification of issue, e.g. "deception", is insufficient in isolation for 1 mark.
1 mark partial, 2 marks elaboration. (2 + 2) [4]

13 From the study by Hraba and Grant on doll choice:

(a) Give <u>one</u> way in which the study was not ecologically valid.

Ecological validity relates to real life and so any difference between the study/procedure and 'real life' is acceptable:
- study done in a 'laboratory' (classroom)
- study done using dolls rather than real people
- study involves asking questions that would not normally be asked
- study not representative of other real life geographical locations
- any other appropriate difference

1 mark partial (e.g. used dolls), 2 marks expansion. (2)

(b) Suggest <u>one</u> way in which the study could be made more true to real life.

Most likely:
- using real people rather than dolls
- conducting the study in a home environment or on the street
- observing children and who their friends are and who they play with

1 mark partial (e.g. use real people), 2 marks explanation. (2) [4]

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14 The study by Rosenhan (sane in insane places) used participant observation.

(a) Give <u>one</u> advantage of participant observation used in this study.

Participant observation is where the aim is to gain a close and intimate familiarity with a given group of individuals (in this case the psychiatrists, nurses, etc in the institutions) and their practices through an involvement with them in their natural environment. The participants do not know they are being observed, assuming the 'participant' is one of them.

1 mark for advantage and 1 mark for relating to this study. (2)

(b) Give an example of a behaviour that the nurses attributed to the pseudo-patients' insanity.

Most likely:
- note-taking
- oral acquisitive behaviour
- ignoring requests for information

1 mark partial (identification, as above), 2 marks expansion (description of behaviour).
(2) [4]

15 The study by Thigpen and Cleckley on multiple personality disorder involved psychometric tests.

(a) Identify <u>one</u> psychometric test used in this study and say what was found using this test.

Most likely:
- IQ test: Wechsler-Bellevue Intelligence Scale, [white 110; black 104]
- if 'white higher on IQ test' then 2 marks as identifies test and result
- Wechsler memory test [black= same as IQ; white = far above IQ]

NB Rorschach, Drawings of Human Figures and EEG are not psychometric tests.
1 mark partial, e.g. naming test (IQ test sufficient), and 1 mark finding. (2)

(b) Give <u>one</u> advantage of any psychometric test.

Most likely:
- the use of standardised measures is objective/scientific, not subjective
- allows comparisons/generalisations to be made with others on a standardised scale
- standardised tests are said to be reliable and valid

1 mark partial, 2 marks elaboration. (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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16 One of the ethical issues that causes concern when carrying out psychological investigations is whether participants are physically or psychologically harmed by the research.

(a) Describe the procedure of your chosen study.

Milgram (obedience)
Bandura, Ross and Ross (aggression)
Haney, Banks and Zimbardo (prison simulation)

Most likely answers (any appropriate answer receives credit):
Milgram: arrive at lab, draw lots, teacher and learner. Word pairs, increasing shocks with errors.
Bandura: children into groups. Stage 1: some observe aggressive model, some passive model. Stage 2: mild arousal/frustration – aggression. Stage 3: test room. Some observe nothing (control group).
Haney: sample selected, allocated as prisoner or guard. Arrested at home, taken to police station then mock prison. De-loused, stripped etc

No answer or incorrect answer. [0]

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

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

Main aspects of procedure identified and described in good detail. Outline is clear, focused and well expressed. Good selection of findings. [7–10]

[max 10]

(b) Describe how participants may have been harmed in your chosen study.

Question states **may** have been harmed; answers can suggest that they were not harmed.
Milgram: physical: 'seizures' but no long lasting harm. Psychological: realisation that they 'killed' a person, moral dilemma re demands of situation, obedience to authority.
Bandura: physical: harm from mallet or other item? Psychological: teaches them how to be aggressive!
Haney: physical: no reported physical problems. Psychological: pathology of power (realisation re behaviour by guards). Pathological prisoner syndrome: stress, etc – study stopped early. Also emasculation, powerlessness, deindividuation.

No answer or incorrect answer. [0]

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

Appropriate aspects of harm identified, description shows some understanding. Some detail and expansion of instance(s). [4–6]

Appropriate aspects of harm identified. Description is clear, has good understanding, is focused and well expressed. Good detail with each aspect explained fully. [7–10]

[max 10]

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(c) Using your chosen study as an example, give arguments for and against causing harm to participants when carrying out research.

Most likely answers (any appropriate answer receives credit):
for: it may be to simulate a realistic situation
for: ends justify means

against: something may go seriously wrong
against: discourages future participation in psychological research
against: lowers the status of psychology – a "crackpot" subject

No answer or incorrect answer. [0]

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

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

Arguments for and against, 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 arguments for and against (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 <u>one</u> other way of gathering data for your chosen study that would cause less harm and say how this would affect the results of the study.

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]

Some appropriate suggestions which 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]

Range of appropriate suggestions which 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 Psychological research is often carried out in laboratories. Some people would argue that this is the best place to conduct research but others would suggest it has a number of limitations.

(a) Describe the procedure of your chosen study.

Loftus and Palmer (eyewitness testimony)
Schachter and Singer (emotion)
Raine, Buchsbaum and LaCasse (brain scans)

Most likely answers (any appropriate answer receives credit):
Loftus: participants watch videotapes of car crashes. Exp 1: estimate speed. Expt 2: leave and return 1 week later. Questions on broken glass.
Schachter: all participants receive injection. Participants in one of 4 conditions: Adrenalin Informed, Adrenalin Misinformed, Adrenalin Ignorant and control. Participants experience stooge and angry or euphoric conditions. Data collected by questionnaire and observation.
Raine: participants given injection of a glucose tracer, then assigned a continuous performance task. Put in scanner.

No answer or incorrect answer. [0]

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

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

Main aspects of procedure identified and described in good detail. Outline is clear, focused and well expressed. Good selection of aspects of procedure. [7–10]

[max 10]

(b) Describe how being in a laboratory helped the experimenter to control variables in your chosen study.

Loftus: all participants watch same videotapes (lots of aspects here). No actual accident. All in same environment. All get same questions about accident.
Schachter: all same environment. All receive injection. Conditions vary but all participants in same condition receive same instructions. All participants experience stooge and angry or euphoric conditions.
Raine: participants at 'testing centre'. All same glucose tracer injection. All same instructions, same continuous performance task. All in same scanner.

No answer or incorrect answer. [0]

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

Appropriate controls identified, description shows some understanding. Some detail and expansion of control. [4–6]

Appropriate controls identified. Description is clear, has good understanding, is focused and well expressed. Good detail with each control explained fully. [7–10]

[max 10]

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(c) What are the advantages and disadvantages of using a laboratory to conduct your chosen study?

Most likely answers (any appropriate answer receives credit):
Adv: allows control over extraneous variables – distractions, etc. Gives credibility to study.
Adv: participants in lab volunteer – more likely to behave 'appropriately'
Disadv: in lab so demand characteristics more likely
Disadv: study may be low in ecological validity
Disadv: 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]

Increased range but basic. Some understanding, some focus. OR advantages or disadvantages only which are focused on question. Max mark of 5 if only advantages or disadvantages. [4–5]

Several advantages and disadvantages which are focused on question. Description is good with reasonable understanding. Some detail and expansion of key features. [6–7]

Balance of advantages and disadvantages which are focused on question. Description is detailed with good understanding and clear expression. The arguments are well considered and reflect understanding which extends beyond the specific study. [8–10]

[max 10]

(d) Suggest <u>one</u> way in which data could have been gathered outside a laboratory for your chosen study and say how you think this might affect 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]

Some appropriate suggestions which are focused on question. Description shows some understanding. Some detail and expansion of aspects allowing generalisation. Max mark of 6 if effect on results not considered. [4–6]

Range of appropriate suggestions which 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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