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

9698/13 Paper 1 (Core Studies 1), maximum raw mark 100

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International Examinations

1 In the study by Loftus and Palmer on eyewitness testimony an independent groups design was used.

(a) What is an independent groups design?

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. (2)

(b) Suggest <u>one</u> advantage of using an independent groups design in this study.

Most likely:
- participants only perform in one condition of the independent variable – can't do all verbs
- participants only perform in one condition of the independent variable – can't be given smashed and hit or be control in experiment 2
- only one set of film clips is needed – if repeated measures used, different film clips needed

1 mark for advantage of design, 1 mark for relating to *this* study. (2) [4]

2 Deregowski reviewed studies of picture perception in different cultures.

(a) What is a review of studies?

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

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

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

Most likely:
Adv: no experiments performed
Adv: can be done in a library
Adv: can review many works, drawing overall conclusions and making generalisations
Any other appropriate point to receive credit.
Disadv: no experiments performed; no 'first-hand evidence'
Disadv: may include biases, misinterpretations, false generalisations
Any other appropriate point to receive credit.
1 mark advantage and 1 mark disadvantage. (2) [4]

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3 The study by Baron-Cohen, Leslie and Frith on autism used psychometric tests.

(a) Identify <u>one</u> psychometric test used in this study and say who it was given to.

Two components required here:
1. two psychometric tests were used:
   - verbal mental age assessed using British Picture Vocabulary Test
   - non-verbal mental age assessed using Leiter International Performance Scale

However, 'an intelligence test' will score 1 mark.
The Sally-Anne test is NOT a psychometric test.
2. To whom the test was given: autistic, Down's syndrome and 'normal' children.

1 mark for identification of test and 1 mark for 'children'. BUT cannot have 2 marks for 'intelligence test to children'. (2)

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

Most likely:
- the use of standardised measures is objective/scientific
- allows comparisons/generalisations to be made with others on a standardised scale
- standardised tests are said to be reliable and valid

1 mark partial (e.g. it is reliable), 2 marks elaboration (e.g. why it is reliable). (2) [4]

4 Gardner and Gardner studied Washoe using the case study method.

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

Most likely:
- richness and detail of the data gathered
- longitudinal, so can track progress over time
- ecological validity: participant studied as part of everyday life
- rare or unique behaviours can be studied in detail

1 mark for advantage (as above), 1 mark for relating advantage to ***this*** study. (2)

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

Most likely:
- only one participant (or very few) so cannot generalise to others
- participant may be unique, possibly 'not normal'
- researchers may become emotionally attached as only one participant studied

1 mark for disadvantage (as above), 1 mark for relating advantage to ***this*** study. (2) [4]

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5 The study by Bandura, Ross and Ross looked at the imitation of aggression.

(a) Outline <u>one</u> hypothesis from this study.

The hypotheses are:
- subjects exposed to aggressive model will reproduce aggressive acts resembling those of the models
- the observation of subdued non-aggressive models will have a generalised inhibiting effect on the subjects' subsequent behaviour
- subjects will imitate the behaviour of a same-sex model to a greater degree than a model of the opposite sex
- boys will be more predisposed than girls towards imitating aggression

1 mark partial description (e.g. some aspect of one hypothesis), 2 marks expansion (e.g. some crucial term added, such as predisposed). (2)

(b) What was the conclusion in relation to this hypothesis?

All hypotheses were supported:
- children exposed to aggressive models displayed imitative aggression, as well as more non-imitative aggression in general
- children in non-aggressive models were significantly less aggressive than children exposed to aggressive models and the control group
- boys exposed to aggressive male models were more aggressive than those exposed to a female model
- boys were more physically aggressive, but levels of verbal aggression were higher in girls than boys

1 mark partial (e.g. the hypothesis was supported), 2 marks expansion (e.g. some detail added, such as numbers or some detail that shows more than bland statement). (2) [4]

6 From the study by Hodges and Tizard on social relationships:

(a) What was the difference between the samples of 'ex-institutional' and 'comparison' children?

The ex-institutional children had been in care for at least two years of their life. The comparison group had not been in care. Groups were matched on various aspects.

1 mark for correct comment about ex-institutional and 1 mark for correct comment about comparison group. (2)

(b) What was the difference between the samples of adopted and restored children?

The adopted children were adopted by non-biological parents and the restored children returned to their biological parents.

1 mark for correct comment about adopted and 1 mark for correct comment about restored. (2) [4]

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7 What <u>two</u> generalisations can be made about the cycle of sleep from the study by Dement and Kleitman?

Most likely:
- sleep consists of periods of REM and N-REM
- on average there will be 3-4 periods of REM each sleep period
- most people begin with N-REM sleep and progress through stages before the first period of REM
- any appropriate comment

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

8 The study by Sperry looks at how material presented to the left and right visual fields is sent to the visual cortex of the brain. Sketch a brain marking the left and right hemispheres, the visual fields and the route of the visual pathways.

Most likely:
For full marks candidates need to include eyes, left and right visual field for each eye, left and right hemispheres and pathway from visual fields to hemispheres. 1 mark for each component, except brain and eyes = 1 mark. (1 + 1 + 1 + 1) [4]

9 The study by Raine, Buchsbaum and LaCasse on brain scans has five conclusions about what this study does and does not indicate. Describe <u>two</u> conclusions from the study.

Any two from:

The study does **NOT:**
- show that biology is the only factor determining how violent an individual is. Predisposition to violence is also influenced by social, psychological, cultural and situational factors;
- mean that murderers pleading not guilty by reason of insanity (NGRI) cannot be held responsible for their actions;
- show that PET can be used to diagnose a predisposition to violence;
- provide information about the cause of the brain dysfunction (i.e. if it's genetic or environmental) nor about the causal direction;
- provide results that can be applied to other types of violent offender;
- provide results that can be applied specifically to violent criminals, rather than just to all criminals, because no non-violent criminal control group was used.

The study **DOES:**
- show that the differences in glucose metabolism in selected brain regions of NGRI murderers, when compared with the normal control sample, were statistically significant;
- provide some evidence to suggest that the following characteristics may contribute to a predisposition for violence in this group: reduced activity in the prefrontal, parietal and callosal regions of the brain, combined with abnormal asymmetries of activity in the amygdale, thalamus and medial temporal lobe including the hippocampus;
- provide results that now need to be replicated independently, refined and then extended to other less specific groups of violent criminals.

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

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10 To explain bystander behaviour, Piliavin, Rodin and Piliavin propose a cost-benefit model of response to emergencies.

(a) Suggest <u>two</u> benefits of helping any victim.

Most likely:
- victim receives assistance
- helper may be rewarded
- helper may feel good about him- or herself
- helper may reduce feelings aroused by emergency
- any other appropriate suggestion

1 mark per suggestion, max two. (2)

(b) Suggest <u>two</u> possible costs of helping any victim.

Most likely:
- victim may be dangerous in some way
- helper may lose time, get dirty
- helper may feel bad about him- or herself
- any other appropriate suggestion

1 mark per suggestion, max two. (2) [4]

11 In some psychological studies participants are psychology students at the university where the study is being conducted.

(a) Identify <u>two</u> studies which used students as participants.

Studies which use students as participants are:
Schachter and Singer (emotion)
Loftus and Palmer (eyewitness testimony)
Haney, Banks and Zimbardo (prison simulation)
Tajfel (intergroup discrimination) – they were school students

1 mark for correct identification of study. Twice. (2)

(b) Suggest <u>one</u> disadvantage of using students as participants.

Most likely:
- they participate because they are told to; they may not have an option
- they may participate to receive course credits
- they may try to please the experimenter more than a non-student would
- they are students and may be more intelligent than average
- they are generally younger than the average population

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

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12 From the review by Gould of army intelligence testing, suggest <u>four</u> reasons why the recruits may not have performed to their true ability.

Most likely, participants:
- could not read
- could not write
- could not use or have never used a pencil
- were given the wrong test, alpha rather than beta
- could not answer questions due to cultural bias
- questions did not relate to 'real life intelligence'

1 mark for each reason, up to max 4. [4]

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

(a) Briefly describe how they used the self report method to gather data.

Most likely:
children presented with four dolls and asked a series of questions.

1 mark partial, 2 marks expansion. (2)

(b) Give <u>one</u> problem with self report data in this study.

Most likely:
- not accurate, subjective rather than objective
- participants may respond to demand characteristics
- participants may provide socially desirable responses, not give truthful answers

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

14 In the study by Rosenhan (sane in insane places):

(a) Who were the pseudo patients?

Most likely:
- people who volunteered to claim they were hearing voices when they were not
- additionals: 5 men, 3 women; 3 psychologists, 1 housewife, etc.

1 marks for correct answer, 1 mark for additional detail. (2)

(b) Who were the participants?

The doctors (psychiatrists), nurses and ward attendants at the various mental hospitals.

2 marks for correct answer. (2) [4]

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15 During interviews, Thigpen and Cleckley (multiple personality disorder) were told anecdotal stories about the behaviour of Eve.

(a) Outline <u>one</u> of these anecdotes.

Most likely pieces of anecdotal evidence:
- Eve going into the woods and being punished
- Eve White going on a shopping trip about which she had no knowledge
- Eve White starting a letter but Eve Black completing it and posting it

1 mark partial (as above), 2 marks elaboration. (2)

(b) Suggest <u>one</u> problem with this type of anecdotal evidence.

Most likely:
anecdotal evidence may be true, it may be partially true (e.g. exaggerated) or it may be totally false.
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

16 One of the ethical issues that causes concern in the conduct of psychological investigations is whether participants were deceived.

(a) Describe the procedure of your chosen study.
Milgram (obedience)
Tajfel (intergroup categorisation)
Schachter and Singer (emotion)

Milgram: arrive at lab, draw lots, teacher and learner. Fake shocks given.
Tajfel: arrive at lab, dots on screen/artistic preference, allocated randomly, given matrices and allocate points to various groups.
Schachter: arrive and given injection. Put into one of 4 groups. Exposed to stooge who is angry or euphoric.

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. [7–10]
[max 10]

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(b) Describe how participants were deceived in your chosen study.

Milgram: not learning and memory; teacher/learner selection; no actual shocks.
Tajfel: told false aim of study; dots on screen/artistic preference irrelevant as allocated randomly.
Schachter: told false aim i.e. suproxin; misinformed and false information, use of stooge.

No answer or incorrect answer. [0]

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

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

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

[max 10]

(c) Using your chosen study as an example, give reasons for and against research involving deception.

Most likely answers (any appropriate answer receives credit):
For: participants are not really harmed by deception
For: knowledge gained may be worth the deception: ends justify means
For: participants remain naïve – behave naturally with no demand characteristics
Against: it is unethical
Against: may discourage from participating in a psychological study ever again
Against: participants may make false assumptions about true nature of 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]

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

Reasons for and reasons 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 'for' or 'against' only. [6–7]

Range of reasons for and reasons 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 'for' or 'against' only. [8–10]

[max 10]

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(d) Suggest ways in which your chosen study could be conducted without deception 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]

17 Psychological research is often conducted in everyday environments such as the home, school or on a journey.

(a) Outline the main findings of your chosen study.
Freud (little Hans)
Samuel and Bryant (conservation)
Piliavin, Rodin and Piliavin (subway Samaritans)

Freud: little Hans is in Oedipus complex, part of phallic stage of psychosexual development.
Samuel: asking one question reduces confusion; conservation easiest for number, then mass, then volume; children of 5 years can conserve, but improves with age.
Piliavin: no diffusion of responsibility; spontaneous helping 62 out of 65 for ill; 18 out of 35 for drunk.

No answer or incorrect answer. [0]

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

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

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

[max 10]

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(b) Describe features of the everyday environment that was used in your chosen study.

Freud: little Hans and his father at home in normal everyday environment.
Samuel: children studied at school, a normal everyday environment for them.
Piliavin: subway carriage which could be used by any member of public.

No answer or incorrect answer. [0]

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

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

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

[max 10]

(c) Using your chosen study as an example, what are the advantages and disadvantages of carrying out studies in everyday environments?

Most likely answers (any appropriate answer receives credit):
Adv: participants familiar with surroundings and comfortable so more likely to relax
Adv: behaviour is more likely to be natural
Adv: external influences will be as usual, e.g. noises. Ecological validity high
Disadv: more difficult to control all variables
Disadv: lower reliability – if repeated may get different results
Disadv: may be difficult to isolate behaviour and remove usual noises and distractions

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 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 an alternative way of gathering data 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. 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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