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**UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS**

**International General Certificate of Secondary Education**

# MARK SCHEME for the October/November 2009 question paper for the guidance of teachers

## 9698 PSYCHOLOGY

**9698/12** Paper 12 (Core Studies 1), maximum raw mark 100

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## Section A

**1 In the study by Loftus and Palmer on eyewitness testimony participants watched film clips of car crashes. Give *two* differences between watching film clips and watching a real car accident.**

Any appropriate comment:

- Expectation of event on video but not in real life.
- Camera controls panorama and sound. Distortions of angles, etc. Person has freedom in real life.
- Video has no emotional involvement, real life may have emotional involvement.
- Video does not require help from observer, in real life victims may need help.

1 mark partial, e.g. stating one side of difference only.
2 marks for both sides i.e. stating one side and how other side is different. (2 + 2) [4]

**2 From the review by Deregowski on perception:**

**(a) Identify *two* depth cues that were used in Hudson's picture of the hunter, antelope and elephant.**

There are three possibilities

- Height in plane.
- Relative or familiar size.
- Superimposition or overlap.

No other cue (gradient of texture or clarity/focus) applies.
1 mark for each correct identification. (2)

**(b) Explain how *one* of these cues allows three-dimensional perceivers to conclude that the man is spearing the antelope, rather than the elephant, in the picture presented by Hudson.**

Hudson's studies on antelope/elephant/man:

- Height in plane: elephant is higher in picture than either man or antelope.
- Relative or familiar size: elephant is smaller than either man or antelope.
- Superimposition or overlap: hills overlap putting elephant at a distance.

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

**3 The study by Baron-Cohen, Leslie and Frith on autism gathered quantitative data.**

**(a)** Briefly describe the quantitative findings.

Most likely:

- All children answered the naming, reality and memory questions correctly.
- 23 out of 27 (85%) 'normal' children answered the belief question correctly.
- 12 out of 14 (86%) of Downs Syndrome children answered the belief question correctly.
- 16 out of 20 (80%) autistic children answered the belief question incorrectly.

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

**(b) Suggest *one* disadvantage of quantitative data.**

Most likely:

- Gives numbers and statistics – no explanation or reason why.

1 mark partial (e.g. lacks depth), 2 marks expansion. (2) [4]

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**4 In the study by Bandura, Ross and Ross on aggression, participants were allocated to conditions.**

**(a) Briefly describe the groups which participants were allocated to within conditions.**

Most likely: (quote from article):
"Subjects were divided into eight experimental groups of six subjects each and a control group consisting of 24 subjects. Half the experimental subjects were exposed to aggressive models and half were exposed to models that were subdued and non aggressive in their behavior. These groups were further subdivided into male and female subjects. Half the subjects in the aggressive and nonaggressive conditions observed same-sex models, while the remaining subjects in each group viewed models of the opposite sex."
Put another way:
Exp 1: aggression: male model and boys; male model and girls. Female model and boys; female model and girls.
Exp 2: non-aggression: male model and boys; male model and girls. Female model and boys; female model and girls.
Control group.
1 mark partial suggestion, 2 marks expansion. Replication of quote NOT needed. (2)

**(b) Explain why participants were allocated to these conditions.**

Most likely:
- Needs aggressive and non-aggressive group to determine whether aggression has an influence.
- Need male model and boys and male model and girls and female model and girls and female model and boys to determine whether sex of model has effect on children.
- Needs a control group.

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

**5 The study by Hodges and Tizard involved ex-institutional children.**

**(a) Describe why these children are 'ex-institutional'.**

Most likely: the children had been in institutional care for at least two years and then were either adopted or restored to biological parent.
1 mark partial, 2 marks expansion. (2)

**(b) Give *one* effect the institutionalisation had on the children.**

Most likely:
- Less likely to be selective in choosing a friend.
- Less likely to have a special friend.
- More likely to be adult oriented.
- Difficulty in getting on with peers.
- Less likely to turn to peers for support.

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

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**6 Freud used the case study method to investigate little Hans.**

**(a) Give *one* advantage of the case study method as used in this study.**
Most likely:
- Study could not have been done in any other way.
- Freud could gather detailed data over a period of time.
- Freud could 'observe' changes in psychodynamic stages.

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

**(b) Give *one* disadvantage of the case study method as used in this study.**
Most likely:
- Could be emotional involvement.
- Vested interest in finding data to support claims.
- Cannot generalise from one individual.

1 mark for disadvantage and 1 mark for relating to study. (2) [4]

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

**(a) Outline which groups of participants copied the behaviour of the stooge.**
Two groups copied the behaviour of the stooge:
- EPI MIS (epinephrine misinformed) and
- EPI IGN (epinephrine ignorant).
- EPI INF and control groups did **not** copy the stooge.

1 mark for each correctly identified group. Abbreviations acceptable. (1 + 1)

**(b) Suggest why these participants copied the behaviour of the stooge.**
Most likely:
"Participants with no explanation of bodily arousal are more likely to seek an explanation from situational cues". EPI MIS (epinephrine misinformed) and EPI IGN (epinephrine ignorant) had no or false clues so were more likely to copy stooge.
1 mark partial, 2 marks expansion. (2) [4]

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**8 The study by Dement and Kleitman on sleep and dreaming looked at the relationship between eye movement and estimates of dream duration.**

TABLE 4

RESULTS OF DREAM-DURATION ESTIMATES AFTER 5 OR 15 MIN. OF RAPID EYE MOVEMENTS

| S | 5 Minutes | | 15 Minutes | |
|---|---|---|---|---|
| | Right | Wrong | Right | Wrong |
| DN | 8 | 2 | 5 | 5 |
| IR | 11 | 1 | 7 | 3 |
| KC | 7 | 0 | 12 | 1 |
| WD | 13 | 1 | 15 | 1 |
| PM | 6 | 2 | 8 | 3 |
| Total | 45 | 6 | 47 | 13 |

**Describe *two* conclusions that can be drawn from the above table.**

Any two conclusions from table acceptable. For example:

- DN estimated more correctly after 5 minutes than after 15 minutes. Same for any other participant.
- Participants estimated correctly (45 and 47) much more than incorrectly (6 and 13).
- For 5 minutes there were 45 correct estimations compared with only 6 incorrect estimations.

Note that the two conclusions must be different, rather than "this is more and this is less".

1 mark partial (e.g. conclusion with no numbers to support), 2 marks full. (2 + 2) [4]

**9 In the study of split-brain patients Sperry carried out tests of olfaction (odour or smell).**

**(a) Describe what happened when participants were presented with an odour through their right nostril to their right hemisphere.**

Most likely: participants are unable to name the smell but may grunt, make aversive reactions or exclamations such as 'phew' to a strong unpleasant smell but not be able to state verbally whether it is garlic, cheese or some decayed matter.

1 mark partial, 2 marks elaboration. (2)

**(b) Give an explanation for the behaviour of participants.**

Most likely: this is because the affective (emotional) component gets across to the major hemisphere but no more specific information.

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

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**10 In the study by Raine, Buchsbaum and LaCasse on brains scans, participants had to complete a continuous performance task (CPT) before the scan started.**

**(a) Briefly describe the procedure of the continuous performance task.**

Most likely:
(Quote from article): Ten minutes before the FDG injection, subjects were given practice trials on the CPT. Thirty seconds before injection; the task was started so that initial task novelty would not be FDG labelled. After 32 min of FDG uptake, the subject was transferred to the adjacent PET scanner room.
1 mark partial, 2 marks elaboration. (2)

**(b) Suggest why participants had to complete this task.**

Two possible answers here:
- (Quote from article): CPT was employed as the frontal challenge task because it has been shown to produce increases in relative glucose metabolic rates in the frontal lobes in normal controls, in addition to increases in right temporal and parietal lobes.
- As a control so all participants are doing the same thing.

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

**11 Before his study on obedience, Milgram asked students to predict the levels to which participants would go in the actual experiment.**

**(a) Outline the prediction made by these students.**

Most likely: (all quotes from article): there was considerable agreement… all predicted that only an insignificant minority would go to the end of the shock series…. Estimates ranged from 0–3%... the class mean was 1.2%.
1 mark partial, 2 marks elaboration. (2)

**(b) Suggest whether the findings of the experiment supported this prediction.**

Most likely:
The findings did not support the prediction. Milgram then provides many reasons why participants behaved as they did.
1 mark for bland "no"; 2 marks for providing reason. (2) [4]

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**12 The prison simulation study by Haney, Banks and Zimbardo was stopped early.**

**(a) Give *one* reason why the study was stopped early.**

Most likely: (quotes from article):

**First** we had learned that the guards were escalating their abuse of prisoners in the middle of the night when they thought no researchers were watching, and the experiment was "off," but our hidden video recorder was on. Their boredom drove them to ever more degrading abuse of the prisoners, ever more pornographic.

**Second**, Christina Maslach was brought in to conduct interviews with the guards and prisoners, but when she saw our prisoners being marched off to the final toilet run of Thursday night, bags over their heads, legs chained together, hands on each other's shoulders for guidance; she went into an emotional rage. She openly challenged the system by stating, "It's terrible what you are doing to these boys!" So it was clear we had seen enough. I had to end this.

1 mark partial (e.g. prisoners were stressed), 2 marks elaboration. (2)

**(b) Suggest whether this study should or should not have been done.**

Answer is speculative. Answer can be 'yes' or 'no' with justification.

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

**13 In the study by Tajfel on intergroup categorisation:**

**(a) Outline *one* ethical guideline that was broken.**

Most likely:

- Informed consent; participants were under 16 years and so could not give full informed consent. Consent gained from teachers but not parents.
- Deception: the participants were not told the true nature of the study.
- Right to withdraw: unlikely participants were given this right: they were 'school children' and so would have to participate.
- Unlikely participants were debriefed but unknown.

1 mark partial, (e.g. correct comment but no issue identified, or correct issue identified only), 2 marks expansion (issue plus correct comment). (2)

**(b) Outline *one* ethical guideline that was *not* broken.**

Most likely:

- Confidentiality: no participant was individually identified.
- Harm: no participant was physically or psychologically harmed.
- May only appeal to those desperate to earn money.

1 mark partial (e.g. correct comment but no issue identified, or correct issue identified only), 2 marks expansion (issue plus correct comment). (2) [4]

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**14 The study by Hraba and Grant in 1969 on doll choice was a replication of a study carried out by Clark and Clark.**

**(a) Identify *two* features that were the same.**

Most likely:

- Both black and white children correctly identified white and 'coloured' dolls (question items 5 and 6).
- Item 7 correct identification was comparable.
- White children always preferred white dolls.
- Children **have** to choose the black or white doll. It is a forced choice technique.

1 mark for each appropriate similarity. (2)

**(b) Identify *two* features that were different.**

Most likely:

- In 1939 black children preferred white dolls; in 1969 black children preferred black dolls.
- In 1939 lighter skinned children were more likely to see themselves as white; in 1969 they saw themselves as black. Differences on items 1–4.

1 mark for each appropriate difference. (2) [4]

**15 The study by Thigpen and Cleckley on Eve is a longitudinal study.**

**(a) Using an example from Thigpen and Cleckley, explain what is meant by a longitudinal study.**

Most likely:

Longitudinal study is carried out over a period of time. Eve was studied over at least 14 months with 100 hours of interviews.

Most have 2 components for 2 marks i.e. what a longitudinal study is plus an example from this study. (2)

**(b) Give *one* advantage of longitudinal studies.**

Most likely:

- General advantage of longitudinal studies such as can track progress over time.
- Specific to this study: if Eve was deceiving she unlikely to do so for such a long period of time.
- Allows T&C to gather wide range of data.
- Allows T&C to record changes in behaviour over a period of time.

N.B. example does not have to be from this study and no automatic example is needed.

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

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

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## Section B

**16 One of the ethical issues that causes concern in the conduct of psychological investigations is that of informed consent. Choose any *one* of the studies from the list below and answer the questions which follow.**

**Gardner and Gardner** (Project Washoe)
**Gould** (IQ testing)
**Samuel and Bryant** (conservation)

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

Most likely answers: (any appropriate answer receives credit):
**Gardner**: No. of signs e.g. 28 signs by 22nd month. Details of differentiation, creativity, generalisation, etc.
**Gould**: Most likely:
1. The average mental age of white American adults stood just above the edge of moronity at a shocking and meagre 13.
2. The average man of many nations was a moron. The darker people of southern Europe and the Slavs of Eastern Europe were less intelligent than the fair people of Western and Northern Europe. The average Russian had a mental age of 11.34; the Italian, 11.01, the Pole, 10.74.
3. The Negro lay at the bottom of the scale – average mental age 10.41.

**Samuel**: Asking one question reduces confusion; conservation easiest for number, then mass then volume; children of 5 years can conserve, but improves with age.

No answer or incorrect answer. (0)

Anecdotal evidence, general statements, minimal detail, minimal focus. (1–3)

Attempt to outline some of main aspects of findings 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 findings. (7–10)

**(b) Describe the procedure of your chosen study and say whether informed consent could be given. [10]**

Most likely answers: (any appropriate answer receives credit):
**Gardner**: Washoe captured from jungle. Taken to Gardner household. Made to behave like human infant. No consent for any aspect.
**Gould**: testing procedure – allocated to test: army alpha, army beta or individual interview. Recruits consented to be in the army and so took tests.
**Samuel**: age groups, different materials and different questions. No consent given as some children did not understand the conservation process, so they would not understand consent. Children were under 16 years; teacher gave consent, parent did not.

No answer or incorrect answer. (0)

Anecdotal description of procedure, brief detail, minimal focus. (1–3)

Appropriate aspects of procedure identified, description shows some understanding. Some detail and expansion of procedures. (4–6)

Appropriate aspects of procedure identified. Description is clear, has good understanding, is focused and well expressed. Good detail each aspect of procedure explained fully. (7–10)

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**(c) Using your chosen study as an example, what are the advantages and disadvantages of gaining informed consent in psychological studies? [10]**

Most likely answers: (any appropriate answer receives credit):

Advantage: 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.

Disadvantage: It is not ethical. It invades human rights.
The participant may make a false assumption about the true nature of the study and behave in a way in which the experimenter does not wish.

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)

**(d) Suggest changes to your chosen study that would make it more ethical and say what effect, if any, these 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. (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)

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**17 Psychologists sometimes gather data about behaviour and experience by observing the ways in which people behave. Such observations may be done in a laboratory or in a natural environment. Choose any *one* of the studies from the list below and answer the questions which follow.**

**Rosenhan** (sane in insane places)
**Piliavin, Rodin and Piliavin** (subway Samaritans)
**Bandura, Ross and Ross** (aggression)

**(a) Describe how observational data was gathered in your chosen study. [10]**

Most likely answers: (any appropriate answer receives credit):
**Rosenhan**: pseudo-patients gain access to mental institutions then as participant observers record the behaviour of ward staff.
**Piliavin, Rodin and Piliavin**: on train, victim becomes ill or drunk. Observers in carriage record behaviour of passengers on train.
**Bandura**: children observed through one-way mirror in controlled observation. Behaviour recorded and inter-rater reliability applied.

No answer or incorrect answer. (0)

Anecdotal evidence, general statements, minimal detail, minimal focus. (1–3)

Attempt to outline how data was gathered though with omission of detail or lack of clarity (comment with some comprehension). (4–6)

Main aspects of data gathering identified and described in good detail. Outline is clear, focused and well expressed. (7–10)

**(b) Describe the results of the observations in your chosen study. [10]**

Most likely answers: (any appropriate answer receives credit):
**Rosenhan**: staff ignored patients, particularly nurses and attendants on wards. Behaviour recorded when pseudo-patients try to talk to staff.
**Piliavin, Rodin and Piliavin**: different numbers obtained for ill and drunk, black and white. Model not needed as participants helped, showing no diffusion of responsibility.
**Bandura**: children exposed to aggressive model were more aggressive. Boys more physically aggressive. Some opposite sex inhibition.

No answer or incorrect answer. (0)

Anecdotal description of results, brief detail, minimal focus. (1–3)

Appropriate results identified, description shows some understanding. Some detail and expansion. (4–6)

Appropriate aspect identified. Description is clear, has good understanding, is focused and well expressed. Good detail each aspect explained fully. (7–10)

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**(c) Using examples from your chosen study, what are the advantages and disadvantages of observations? [10]**

Indicative content: most likely answers (any appropriate answer receives credit):

Advantages: Those being observed behave naturally – high ecological validity.
Behaviour has no demand characteristics – no ethics problems.
If controlled then can replicate and have reliability and validity.

Disadvantages: Observed behaviour may not be repeated/behaviour being observed may not happen.
Lack of control may mean replication is difficult.
Observer bias/reliability of recording (resolved via inter-rater reliability).
Gaining access to participant(s) and situations.
Observing without consent/other ethical issues.

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 or disadvantages which are focused on question.
Description is good with reasonable understanding.
Some detail and expansion of key features. (6–7)

Balance of advantages or 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)

**(d) Suggest *one* other way of gathering data in your chosen study, and say how you think this might 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. (1–3)

Some appropriate suggestions which are focused on question.
Description shows some understanding.
Some detail and expansion of aspects, with consideration of effect on results.
Max mark of 6 if effect on results not considered. (4–6)

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)

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