

## MARK SCHEME for the May/June 2008 question paper

### **9698 PSYCHOLOGY**

**9698/01**

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.

All Examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

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

- CIE will not enter into discussions or correspondence in connection with these mark schemes.

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**1 From the study by Loftus and Palmer on eyewitness testimony:**

**(a) Briefly describe the quantitative results of the second experiment.**

Summary of findings acceptable, but some may give numbers:

- Smashed yes = 16 smashed no = 34;
- hit yes = 7 hit no = 43;
- control yes = 6 control no = 44

1 mark partial, 2 marks expansion. (Figures not needed for max mark, but answer without figures must have full detail). Reproduction of table as above is worth 2 marks.

NO marks for findings of Experiment 1

(2)

**(b) Suggest one advantage of quantitative results.**

Most likely:

- quantitative give numbers and statistics – can compare data;
- Numbers are objective; more scientific;
- Less open to interpretation or bias.

1 mark partial, 2 marks expansion.

(2) [4]

**2 From the review of studies on picture perception by Deregowski:**

**(a) What is a cross-cultural study?**

Where psychological phenomena are examined in people from more than one cultural background. Any explanation acceptable.

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

(2)

**(b) Describe the findings of one study included in the Deregowski review.**

Any study (anecdotal or empirical) included in the Deregowski review. Includes reports by: Robert Laws; Mrs Fraser, 'other reports'; Hudson's studies on antelope/elephant/man, 'two-pronged trident', cube construction; preference for split-style.

1 mark partial description of study, 2 marks expansion. 0 mark for 'have no depth perception' as perception of pictures is key.

(2) [4]

**3 The study by Baron-Cohen, Leslie and Frith on autism involved children.**

**(a) Suggest one ethical issue that applies to the children in this study.**

Note: question does not state guidelines that were broken. The question applies to all ethical issues, including those that were maintained.

Most likely:

- Informed consent as children under 16 cannot give informed consent.
- They probably did not understand they had the right to withdraw.
- They were not deceived, or harmed. Confidentiality was maintained.
- Probably not debriefed as would not understand reason for study.

1 mark partial, 2 marks expansion.

(2)

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**(b) Suggest why psychologists have ethical guidelines.**

Interesting question. Any logical answer to receive credit.

- To protect participant from harm;
- Sets standards for professionalism
- Ensures fundamental human rights are not violated;
- Sets boundaries for privacy and decency

1 mark partial suggestion, 2 marks expansion.

(2) [4]

**4 Describe two of the training methods which Gardner and Gardner adopted to encourage Washoe to use sign language.**

- One method was imitation – Washoe copied the Gardner’s behaviour. Washoe then reinforced
- Another method was behaviour shaping – successive approximations and operant reinforcement.

1 mark partial description e.g. rewarded her or tickled her.

2 marks expansion e.g. terms imitation (1 mark) and rewarded (1 more mark)

(2+2) [4]

**5 From the study by Samuel and Bryant on conservation:**

**(a) Briefly describe the fixed array condition.**

“the children saw no transformation being made but only saw the post-transformational display”. Quote direct from article. Direct quote not needed for max marks. Drawings can receive credit.

1 mark partial description e.g. ‘not showed transformation’ or ‘only saw end’

2 marks expansion

(2)

**(b) Suggest one reason why this condition was included in the study.**

“this was to check that children who answered the post-transformational correctly in the other two conditions did so by bringing over information from the pre-transformational display”. Quote direct from study. i.e. it is a control, so Q is why have a control. Quote not needed for max mark.

1 mark partial e.g. ‘as a control’ 2 marks explanation.

(2) [4]

**6 In the study by Bandura, Ross and Ross on aggression the behaviour of the children was observed.**

**(a) Describe one of the categories of behaviour that was observed.**

Any from: imitative physical; imitative verbal; imitative non-aggressive verbal; mallet aggression; sits on bobo; punches bobo; non-imitative aggression; aggressive gun play.

1 mark for 1 word or 1 mark for partial answer. 2 marks for full category.

1 mark partial e.g. ‘Physical aggression’ even if example given.

2 marks full e.g. imitative physical aggression or aggressive gun play.

(1+1)

**(b) Suggest one way in which the reliability of any observation can be checked.**

Reliability checked by inter-rater reliability – two observers were used. In this study Correlation .89 between ratings. (coefficient not needed or reference to this study for 2 marks)

1 mark partial e.g. ‘by inter-rater reliability’; 2 marks expansion, such as explanation of inter-rater reliability.

(2) [4]

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7 From the study by Hodges and Tizard (social relationships) both qualitative and quantitative data was gathered.

(a) Describe how qualitative data was gathered in this study.

Question asks about gathering data i.e. what and from whom, not the actual data.

Most likely: qualitative data was gathered via:

- Interview with adolescent subject;
- Interview with mother (sometimes father);
- Questionnaires to various MAY have given qualitative data, but this needs to be explicit.

Standardised test (Rutter A or Rutter B) would not give qualitative data

1 mark partial such as one feature e.g. 'via interviews'.

2 marks expansion (two features) e.g. interview with adolescent'.

Interview with participant insufficient for 2 marks.

(2)

(b) Suggest one weakness of qualitative data.

Most likely:

- quantitative give no numbers and statistics – cannot compare data;
- is subjective – participant may lie, so less scientific;
- more open to interpretation or bias from experimenter.

1 mark partial e.g. 'it is bias' 2 marks expansion.

(2) [4]

8 The case study of little Hans by Freud includes details of the 'giraffe episode'.

(a) Briefly describe the 'giraffe episode'.

Quote direct from article:

"Hans was now able to communicate his wishes in regard to his mother. He did so, in what was still a distorted form, by means of the fantasy of the two giraffes.

*Hans:* In the night there was a big giraffe in the room and a crumpled one, and the big one called out because I took the crumpled one away from it. Then it stopped calling out, and then I sat down on top of the crumpled one.

*I (puzzled):* What? A crumpled giraffe? How was that?

*Hans:* Yes. (He quickly fetched a piece of paper, crumpled it up and said) It was crumpled like that.

*I:* And you sat down on top of the crumpled giraffe? How? (He again showed me by sitting down on the ground)

*I:* Did you dream about the giraffe?

*Hans:* No, I didn't dream. I thought it. I thought it all. I'd woken up earlier.

*I:* What can it mean: a crumpled giraffe?"

1 mark partial i.e. gist of the episode, 2 marks expansion i.e. clear understanding. (2)

(b) Explain why this is evidence for the Oedipus complex.

The answer is – The boy's father and mother were the two giraffes.

Hans sexually desires his mother and the sitting on the crumpled giraffe is said to represent Hans having sex with his mother.

1 mark partial explanation, 2 marks for answer with expansion.

(2) [4]

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9 In the study by Schachter and Singer on emotion, participants were deceived. Give **two** ways in which participants were deceived.

Any two from: (could be others too)

- Told is a study on vitamin supplements and vision – drug suproxin;
- Given false information regarding actual injection of adrenaline
- Given false descriptions of effects of adrenaline in epi misgroup
- Epi ign not deceived if they are told nothing; neither are control.
- Existence of Stooage is deception (behaving angrily or euphorically).

1 mark partial, 2 marks expansion. Twice.

(2+2) [4]

10 The study by Sperry (split brain) involved a small number of participants.

(a) Give one advantage of the case study method

Most likely:

- Richness and detail of the data gathered.
- Often done over period of time = longitudinal, so changes can be recorded.
- Rare or unique behaviours can be studied in detail.
- Sample may be self selecting – not chosen by researchers.
- Can provide qualitative and quantitative data.

1 mark partial; 2 marks expansion.

(2)

(b) Give one limitation when generalising from a small number of participants.

Most likely:

- May not be representative of wider population
- Generalising does not take into account individual differences
- Original sample may be different from those in wider population

1 mark partial, 2 marks full.

(2) [4]

11 In the study by Raine, Buchsbaum and LaCasse

(a) Name **two** of the cortical areas that were studied.

any two from lateral prefrontal, medial prefrontal, parietal, occipital, temporal,  
1 mark each. No marks for sub-cortical areas.

(2)

(b) Describe **one** difference in brain activity between the NGRI's (participants claiming not guilty for reasons of insanity) and the control group.

Most likely:

Quote from article:

*"Murderer's were characterised by reduced glucose metabolism in the prefrontal cortex, superior parietal gyrus, left angular gyrus, and the corpus callosum, while abnormal asymmetries of activity (left hemisphere lower than right) were also found in the amygdala, thalamus, and medial temporal lobe"*

When added to details from results section of the article:

NGRI's less activity/lower glucose metabolism than controls in

- lateral and medial prefrontal cortical areas
- left angular gyrus and bilateral superior parietal regions.
- glucose metabolism in the corpus callosum

NGRI's higher activity/more glucose metabolism than controls in

- occipital lobe glucose metabolism than normals
- greater right thalamic activity

NGRI's differential activity of glucose metabolism than controls in

- Murderers had relatively reduced left and greater activity in medial temporal lobe including the hippocampus.
- reduced left and greater right amygdala activity
- greater right thalamic activity

(2) [4]

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

**(a) Describe how participants were selected for the study.**

- Newspaper ad wanting volunteers for psychological effects of prison life.
- 70 applicants given diagnostic interviews, and tests, to eliminate psychological problems, medical etc.
- Ends with final sample of 24 participants.

1 mark partial, e.g. only one feature e.g. 'newspaper ad'

2 marks expansion i.e. includes two or more features.

0 marks for details of arrest or initiation procedure.

(2)

**(b) Suggest one weakness with the way participants were selected for the study.**

Most likely:

- Newspaper ad is restricted to those reading that newspaper
- Volunteers have a number of personality characteristics;
- May only appeal to those desperate to earn money!

1 mark partial, 2 marks expansion.

0 marks for limitation of sample such as 'all males' or 'all students'.

(2) [4]

**13 The review by Gould on intelligence testing described the work of Yerkes.**

**(a) Outline one assumption made by Yerkes in relation to intelligence testing.**

Most likely assumptions to be outlined:

- Intelligence testing at that time very poor;
- Intelligence is inherited;
- Eugenics is good;
- Coloured people are inferior to whites;
- More recruits were literate than there actually was.
- All recruits could use a pencil

1 mark partial, 2 marks expansion.

(2)

**(b) Suggest whether the findings of the testing supported this assumption.**

Two possible answers here:

- They did because they were biased! And 'facts' resulted.
- They didn't because they were unfair and biased. Time in US meant scores improved, etc.

1 mark 'yes or no', 2 marks for giving reason.

(2) [4]

**14 The study by Haba and Grant measured racial preference by asking children to choose between a black doll and a white doll.**

**(a) Suggest one problem with this technique.**

Most likely: children **have** to choose black or white. It is a forced choice technique. Two types of answer:

Wider: Technique of *self report/method*

- May lead to false answers and demand characteristics
- Laboratory setting (use of dolls) lack ecological validity

Specific: Use of forced choice:

- They cannot say both, or 'depends' or opt out.
- Researchers make assumption that choice is actual preference.

1 mark partial, 2 marks expansion.

(2)

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**(b) Suggest an alternative way the choices of the children could be measured.**

Most likely: anything where there is not a forced choice.

- Having more question options;
- widening range of questions, 5 point scale;
- using alternative method such as observation and watching the children play;
- using 'real people' rather than dolls

1 mark partial, 2 marks expansion.

(2) [4]

**15 In the study on multiple personality disorder, Thigpen and Cleckley carried out a number of tests. Briefly describe the findings of two of these tests.**

Most likely:

IQ test: Wechsler-Bellevue Intelligence Scale, [white 110; black 104];

Wechsler memory test [black = same as IQ; white = far above IQ];

Rorschach [white = anxiety & obsessive/compulsive traits, Black = hysterical tendency];

Drawings of Human Figures [white = repression, Black = regression];

EEG [black = 12.5 cps, white & Jane 11 cps].

1 mark partial e.g. naming test and 1 mark finding. Twice.

If 'white higher on IQ test' then 2 marks as identifies test and result.

(2+2) [4]

Partial/full answer

0 marks	no answer <b>or</b> incorrect answer
1 mark	partially correct answer <b>or</b> 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 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) Briefly describe the procedure of your chosen study.

Dement and Kleitman (sleep and dreaming)

Milgram (obedience)

Tajfel (intergroup discrimination)

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

Dement: P's arrive at lab, attached to EEG & go to sleep. Woken and asked to record dream.

Milgram: P's arrive, are deceived in many ways. Teacher & learner fake shocks 7 prods.

Tajfel: dots on screen or Klee/Kandinsky. Allocate points to in & out groups.

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

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

Dement: lab so room and bed always same; same doorbell; couldn't control alcohol caffeine.

Milgram: lab so room, personnel & equipment (generator) always same. Instructions and prods same as was Mr Wallace's screams.

Tajfel: presentation of dots or Klee/Kandinsky same. Instructions & experimenters & matrices.

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 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 – P's 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 one 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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17 Psychologists sometimes gather data about behaviour and experience by observing the ways in which people behave.

(a) Describe how observational data was gathered in your chosen study.

Rosenhan (sane in insane places)

Piliavin, Rodin and Piliavin (subway Samaritans)

Bandura, Ross and Ross (aggression)

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)

[max 10]

(b) Describe the results of the observations in your chosen study.

Rosenhan: staff ignored patients, particularly nurses and attendants on wards. Behaviour recorded when pseudo-patients tries to talk to staff.

Piliavin, Rodin and Piliavin: different numbers obtained for ill & 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)

[max 10]

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

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

Adv – those being observed behave naturally – high ecological validity

Adv – behaviour has no demand characteristics – no ethics problems

Adv – if controlled then can replicate and have reliability and validity

Disadv – observed behaviour may not be repeated/behaviour being observed may not happen

Disadv – lack of control may mean replication is difficult

Disadv – observer bias/reliability of recording (resolved via inter-rater reliability)

Disadv – gaining access to participant(s) and situations

Disadv – 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 strengths or weaknesses.

(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)

[max 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.**

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)

[max 10]