

## MARK SCHEME for the May/June 2007 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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## Section A

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

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

Most likely: YES: smashed 16, hit 7, control 6. NO: smashed 34, hit 43, control 44.  
 People in all three groups saw broken glass that did not exist. Those receiving  
 smashed saw most broken glass. Numbers not needed for 2 marks.  
 1 mark partial, 2 marks full. [2]

(b) Suggest an explanation for these results.

Most likely: 1. 'smashed' is a leading verb and participants responded to the verb.  
 2. the question 'did you see broken glass' also leading hence yes responses in hit  
 and control condition.  
 1 mark partial, 2 marks full. [2] [4]

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

(a) Describe the findings from **one** study.

Most likely: Any from: Laws, Fraser or 'Other'.  
 Any of Hudson's studies: man/antelope/elephant; construct 'cube';  
 two-pronged trident; split-style elephants.  
 1 mark partial, 2 marks full. [2]

(b) What can be concluded about picture perception from this study?

Most likely: picture perception is learned; pictures cannot be used as lingua  
 franca.  
 1 mark partial, 2 marks full. [2] [4]

3 In the study by Baron-Cohen, Leslie and Frith on autism the children were asked four questions.

(a) Identify **two** questions used as controls.

The belief question is the critical question and not a control.  
 The naming, reality and memory questions were controls to ensure the children  
 understood what was going on.  
 1 mark for each correct identification. [2]

(b) Why were the children asked control questions?

Most likely: to determine whether the children understood the procedure.  
 To eliminate extraneous variables/confounding.  
 1 mark partial, 2 marks full. [2] [4]

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4 The study by Gardner and Gardner on Washoe was conducted in a laboratory.

(a) Suggest **one** reason why this was an advantage.

Most likely answers: same as for any lab experiment. Control over variables, etc.  
1 mark partial e.g. 'control over variables', 2 marks basic with expansion. [2]

(b) Suggest **one** problem with studying animals in a laboratory.

Most likely answer: behaviour is not natural/low in ecological validity – chimpanzee not in wild. Also unethical – no right to withdraw or consent.  
1 mark partial, 2 marks full. [2] [4]

5 From the study by Samuel and Bryant on conservation:

(a) Outline the main difference between the children's responses to the 'one question condition', compared to the 'two question condition' (Piaget's original design).

Most likely answers: there were fewer errors in the one question condition for all materials than the two question condition.  
No marks for differences in procedure (Q states responses).  
1 mark partial, 2 marks full. [2]

(b) Suggest **one** reason for this difference.

Most likely answer: children are less confused when they are asked only one question.  
1 mark partial, 2 marks expansion. [2] [4]

6 The study by Bandura, Ross and Ross on aggression found a number of differences in the behaviour of participants.

(a) Outline **one** difference in behaviour between the male and the female participants.

Most likely answers: 1. females less physically aggressive; 2. females more verbally aggressive, particularly with female model. 3. females more mallet aggression than males with female model. 4. females punch bobo more than males when with male model. 5. females less aggressive gun play than males.  
2 marks for any one correct statement. 1 mark 'males more aggressive'. [2]

(b) Suggest **one** explanation for this difference in behaviour.

Question is speculative and any appropriate answer is acceptable. For example: males and females are brought up differently; males more predisposed to aggression (Bandura quote).  
1 mark partial, 2 marks expansion. [2] [4]

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7 From the study by Hodges and Tizard (social relationships):

(a) What did teachers say about the ex-institutional children?

Some responses are ambiguous in that it isn't clear whether they were said by teachers or the adolescent or by the parent. Some aspects, those which we will credit are below.

NB: 1 mark for each response or 2 marks for 1 response in detail.

Rated as 'less popular' than average with peers (though some rated as more popular);

Less often liked by other children (poor relationships);

Often left until near the end when choosing teams or groups;

Significantly more quarrelsome;

More likely to engage in bullying;

Trying more than most to get attention from teachers and a stranger entering the room. At 16 still trying to get a lot of attention from adults, often more aggressive.

NOT: special friend (15-20% teachers did not answer this). Not anything on family relationships.

[2]

(b) Suggest **one** problem with gathering information from teachers in this study.

Teachers may not know what the children are really like out of school; may give biased responses. Other suggestions acceptable.

1 mark partial, 2 marks full.

[2]

[4]

8 Freud wrote that the case study of little Hans provided support for the Oedipus complex. Outline **two** pieces of evidence from the study that support Freud's theory of the Oedipus complex.

Most likely: Any evidence related to Oedipus complex: suggestions to mother, giraffe episode, father grandfather story. 1 mark partial, 2 marks full, twice.

[2+2]

[4]

9 One study by Dement and Kleitman looked at the relationship between eye movements and dream content.

(a) Briefly describe the dream content for one participant.

P1: standing at bottom of cliff operating hoist and looking at climbers;

P2: climbing ladders and looking up and down;

P3: throwing basketballs at a net;

P4: two people throwing tomatoes at each other;

P5: driving a car then speeding car from left.

Any one correct response = 2 marks.

[2]

(b) What did Dement and Kleitman conclude about the relationship between eye movements and dream content?

Most likely:

1. four main patterns: mainly vertical; mainly horizontal; vertical and horizontal; little or no movement.

2. dream content does correspond to eye movements during sleep.

1 mark brief e.g. there is a relationship. 2 marks elaboration such as example.

[2]

[4]

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**10** From the study by Sperry (split brain):

**(a)** Briefly describe the apparatus used by Sperry.

**Diagram of apparatus**



1 mark for each piece of equipment: one eye covered; gaze centred on fixation point; stimuli presented on 35mm transparencies for 1/10th of a second or less. Objects.

[2]

**(b)** Suggest why Sperry refers to the left hemisphere as ‘the dominant hemisphere’.

Most likely: left hemisphere contains language centres; finger-jump test.  
2 marks for language centres.

[2]

[4]

**11** In the study by Milgram on obedience:

**(a)** How did the experimenter try to prevent participants from withdrawing from the study?

Most likely: 1. use of prods e.g. “please continue”; “the experiment requires that you go on”; “it is absolutely essential that you continue”; “you have no other choice, you must go on”. 2. Less likely but also credit things like payment, done in prestigious university.

1 mark partial (e.g. ‘use of prods’), 2 marks elaboration (e.g. ‘use of prods such as please continue’).

[2]

**(b)** Why are participants given the right to withdraw from psychology experiments?

Most likely: unethical to detain them against their wishes for 1 mark and elaboration e.g. they may suffer harm if they don’t for 2 marks.

[2]

[4]

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**12** Piliavin, Rodin and Piliavin made a number of conclusions about subway Samaritans.

**(a)** Describe **one** conclusion from the study.

List of 5 conclusions (direct quotes)

1. An individual who appears to be ill is more likely to receive help than one who appears to be drunk, even when the immediate help needed is of the same kind.
2. Given mixed groups of men and women, and a male victim, men are more likely to help than are women.
3. Given mixed racial groups, there is some tendency for same-race helping to be more frequent, especially when the victim appears drunk rather than ill.
4. No diffusion of responsibility was found, i.e. help is not less frequent or slower in coming from larger as compared to smaller groups of bystanders; if anything the effect is in the opposite direction.
5. The longer the emergency continues without help being offered (i) the less impact a model has on the helping behaviour of observers, (ii) the more likely it is that individuals will leave the immediate area in order to avoid the situation and (iii) the more likely it is that observers will discuss the incident and implications for their behaviour.

1 mark partial, 2 marks for a correct conclusion (as above). [2]

**(b)** Describe the evidence for this conclusion.

Evidence from study to match with one of the five conclusions above.

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

**13** According to Tajfel (intergroup discrimination):

**(a)** What is the cause of intergroup discrimination?

Any two (or more) groups that are different from each other in some way.

Typically in-group and out-group.

1 mark partial (e.g. 'categorisation'), 2 marks elaboration (e.g. of categorisation). [2]

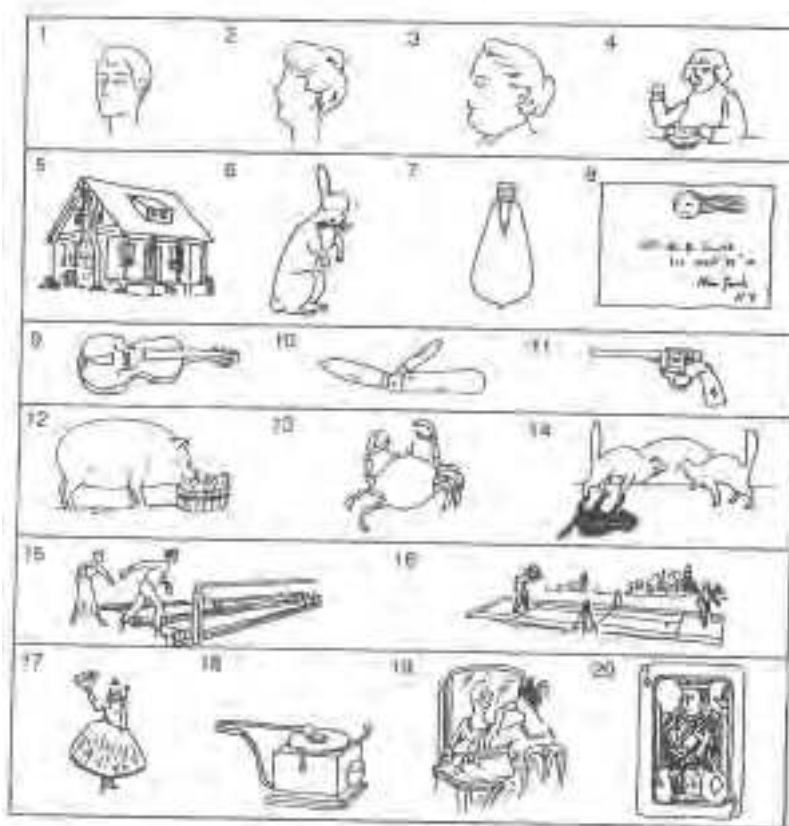
**(b)** Suggest **one** way in which intergroup discrimination may be reduced.

Most likely: Any psychological suggestion that is possible (e.g. jigsaw technique).

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

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- 14 In the study by Gould, army recruits were given the beta test which involved participants drawing parts missing from pictures. Draw **two** examples of these pictures, identifying which part is missing from each of your drawings.



1 mark for correct drawing and 1 mark for missing part. Twice.  
1 mark for drawing only or verbal description only.

[2+2] [4]

- 15 All studies in psychology raise ethical issues. Outline **two** ethical issues raised in the study by Rosenhan (sane in insane places).

Most likely:

Confidentiality: hospitals and participants were not named.

Deception: hospitals and doctors were deceived.

Consent: hospitals and doctors did not consent.

Harm: hospitals and doctors may have been psychologically harmed.

Right to withdraw not applicable. Doctors cannot withdraw from their job.

No credit for anything related to pseudo-patients as they knew what to expect.

1 mark ethical issue OR reason, 2 marks issue plus explanation, twice.

[2+2] [4]

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## Section B

**16** One common way of collecting data in psychology is to ask participants questions and then to analyse the answers. Such data are referred to as a self report measure.

(a) Describe the procedure of your chosen study.

**Hraba and Grant** (doll choice)

**Thigpen and Cleckley** (multiple personality disorder)

**Schachter and Singer** (emotion)

**Hraba:** children given 8 questions to determine racial awareness, identification and preference. Use of 4 dolls identically dressed. Children forced to choose a doll in response to the question.

**Thigpen:** use of many methods to gather data: over 100 hours of interviews, also hypnosis, psychometric and projective tests.

**Schachter:** longest procedure: injections; creation of cognition; rooms with euphoric or angry stooge.

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. mark: 10]

(b) Describe the self report measure that was used in your chosen study.

**Hraba:** forced choice response (doll choice) in relation to question asked.

**Thigpen:** interviews with different personalities.

**Schachter:** completion of questionnaire at end of study. Two critical questions asked.

No answer or incorrect answer.	[0]
Anecdotal description of self report measure, brief detail, minimal focus.	[1-3]
Appropriate aspect identified, description shows some understanding. Some detail and expansion of self report measure.	[4-6]
Appropriate aspect identified. Description is clear, has good understanding, is focused and well expressed. Good detail, each aspect of self report measure explained fully.	[7-10]
	[max. mark: 10]



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- (c) Using your chosen study as an example, what are the strengths and weaknesses of using self report measures?

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

**Strength:** participants given opportunity to express their feeling and explain their behaviour.

**Strength:** quality and richness of data gained. Not limited to quantitative.

**Strength:** participants are less likely to drop out of the study.

**Weakness:** data may be unique and not comparable to others.

**Weakness:** participants may provide socially desirable responses.

**Weakness:** participants may respond to demand characteristics.

No answer or incorrect answer.	[0]
Anecdotal description, brief detail, minimal focus. Very limited range. Description may be inaccurate, incomplete or muddled.	[1-3]
Advantages and disadvantages which are focused on the question, are psychologically informed but lack detail, elaboration or example.	[4-5]
Advantages and disadvantages which are focused on the question and are psychologically informed. There is reasonable detail with some elaboration or examples. Discussion becoming clear and shows some understanding. Half marks for advantages or disadvantages only.	[6-7]
Range of advantages and disadvantages (4 or more) which are focused on the question and are psychologically informed. There is good detail with elaboration and examples. Discussion is good and shows understanding.	[8-10]
	[max. mark: 10]

- (d) Suggest how **one** other method could be used to investigate your chosen study 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. mark: 10]

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**17** Psychological research is often carried out on a restricted sample of participants. For example, some studies use children, some studies use students and some studies use those who have been charged with murder.

**(a)** Outline the main findings of your chosen study

**Samuel and Bryant** (conservation)  
**Haney, Banks and Zimbardo** (prison simulation)  
**Raine, Buchsbaum and LaCasse** (brain scans)

Indicative content:

**S&B:** age: children under 7 years can conserve, but fewer errors, the older the child.

Question: fewer errors with one question compared to two question.

Materials: best on number, better on mass and most errors on volume.

**HBZ:** situational rather than dispositional; events: e.g. planned escape. Release of prisoners after 36 hours and stopping after 6 days. The behaviour of guards with examples: and pathology of power.

Behaviour of prisoners: powerlessness, emasculation, etc: pathological prisoner syndrome.

**R,B&L:** NGRIs, compared to controls:

Had lower glucose metabolism in prefrontal, parietal areas and corpus callosum.

No difference in temporal areas. Higher in occipital.

Greater activity on right in thalamus.

Amygdala and hippocampus: less activity in the left and more activity in the right.

Cingulate, Caudate, Putamen, Globus Pallidus, Midbrain and cerebellum – no significant differences.

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. Good range of findings.	[7-10]
	[max. mark: 10]

**(b)** Describe the sample of your chosen study and say how the participants were selected.

Indicative content:

**S&B:** 252 boys and girls between the ages of five and eight-and-a-half. From schools and playgroups in and around Crediton, Devon. They were divided into four age groups of 63 children, whose mean ages were: Group 1: five years three months, Group 2: six years three months, Group 3: seven years three months, Group 4: eight years three months.

**HBZ:** Newspaper advert; payment \$15 per day; screened and 24 selected. Randomly allocated prisoner and guard. All students, male and mainly white from USA.

**R,B&L:** 41 NGRIs 39 male and 2 female. 14 were black, 27 were white. Mean age: 34.3 years.

Reasons for referral were: 6 schizophrenia, 23 head injury, 3 psychoactive substance abuse, 2 affective disorder, 2 epilepsy, 3 hyperactivity and learning disability, 2 paranoid personality disorder.

Controls matched on age 31.7 years, gender and schizophrenia. None of these people had any history of or convictions for violent behaviour.

No answer or incorrect answer.	[0]
Anecdotal description of sample and sampling technique, brief detail, minimal focus.	[1-3]
Appropriate sample and sampling technique identified, description shows some understanding. Some detail and expansion.	[4-6]
Appropriate sample and sampling technique described. Description is clear, has good understanding, is focused and well expressed. Good detail and sample and sampling technique explained fully.	[7-10]
	[max. mark: 10]

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

**NB: two or more advantages and disadvantages should be considered.**

**Possible answers (any appropriate answer receives credit):**

**Adv:** participants are available and willing. E.g. may be students (course credits) or may be volunteers (paid).

**Adv:** more likely to do unethical things without question.

**Adv:** may be limited numbers and type e.g. male; can be used as pilot study before generalising; can stimulate further research.

**Adv:** are a control in that other variables (e.g. feminine things) are eliminated.

**Disadv:** more likely to conform/consent/show demand characteristics if they are paid/receive course credits/will get off murder.

**Disadv:** cannot generalise to other groups the restricted sample does not represent.

**Disadv:** it is reductionist in that the sample may never be isolated in such a way from real life.

No answer or incorrect answer.	[0]
Anecdotal description, brief detail, minimal focus. Very limited range. Description may be inaccurate, incomplete or muddled.	[1-3]
Advantages and disadvantages which are focused on the question, are psychologically informed but lack detail, elaboration or example.	[4-5]
Advantages and disadvantages which are focused on the question and are psychologically informed. There is reasonable detail with some elaboration or examples. Discussion becoming clear and shows some understanding. Half marks for advantages or disadvantages only.	[6-7]
Range of advantages and disadvantages (4 or more) which are focused on the question and are psychologically informed. There is good detail with elaboration and examples. Discussion is good and shows understanding. Half marks for advantages or disadvantages only.	[8-10]
	[max. mark: 10]

- (d) Suggest a different sample 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. mark: 10]