

## **MARK SCHEME for the May/June 2014 series**

### **9698 PSYCHOLOGY**

**9698/12**

Paper 1 (Core Studies 1), maximum raw mark 80

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge will not enter into discussions about these mark schemes.

Cambridge is publishing the mark schemes for the May/June 2014 series for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level components and some Ordinary Level components.

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### Section A

#### 1 From the study by Mann et al. (lying):

- (a) Give two examples of crimes of which the suspects were accused. [2]

theft, arson, (attempted) rape, murder

1 mark per crime, × 2

- (b) Describe what the researchers did to be sure that the sections of video they were using from the suspects were definitely lies or truths. [2]

“The experimenter scoured the files looking for forensic evidence or substantial reliable independent witness statements to corroborate instances of truth or lie as implicated by the investigating officer. An example of such an appropriate case would be where the suspect initially denies any involvement in the crime, and then confesses after being presented with substantial forensic/witness evidence. Cases without such evidence were eliminated. Of the remaining appropriate cases, only those video clips where truth or lie had been strongly supported by other convincing evidence were taped onto another videotape.”

1 mark partial (simple statement, e.g. about witness/forensic)

2 marks full (good description of one way, e.g. an example, or two ideas briefly)

e.g. Checking with police = 0 marks

Suspect changed mind from lie to truth when questioned = 1 mark

#### 2 In the study by Loftus and Pickrell, they gave an example of the false event presented to one participant, a 20-year-old Vietnamese-American woman. Describe this false event. [4]

4 marks, 1 per each accurate piece of information.

e.g. lost in mall; age 5; crying; elderly/Chinese/woman;

it was a story about going to K-Mart = 1 mark

in a shopping mall = 1 mark

reunited with family = 0 marks

it was about being 5 and going to a store, with mum and siblings, getting lost going to get an ice cream, and being found by an old lady (4 marks)

lost = 0 marks

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**3 In the study by Baron-Cohen et al., they suggested that one problem with the original eyes test was that it suffered from a ceiling effect.**

**(a) Explain what is meant by a ‘ceiling effect’.** [2]

All participants score highly on the test = 1 mark  
because it is too easy = 2nd mark

1 mark partial (basic statement: description of what a ceiling effect is)  
2 marks full (expanded explanation: as both points above)

**(b) Suggest why a ceiling effect is a problem in this study.** [2]

Because it narrows the range of results/it is harder to discriminate between participants so in this study it would be hard to tell who was very good and who was fairly good at judging emotion

1 mark partial (basic statement), 2 marks full (expanded explanation)

**4 In the study by Milgram (obedience), verbal prods were used.**

**(a) Describe two of the verbal prods.** [2]

Prod 1: Please continue. OR Please go on.  
Prod 2: The experiment requires that you continue.  
Prod 3: It is absolutely essential that you continue.  
Prod 4: You have no other choice, you *must* go on.

1 mark partial (1 or 2 prods **not verbatim**)  
2 marks full (**2 prods** 1 verbatim, 2nd does not have to be verbatim)

**(b) Suggest why these prods followed a sequence.** [2]

To increase the obedience demanded by the experimenter to “bring the subject into line”, i.e. to produce continued obedience even when the participant began to show signs of disobedience/tension/conscience.

1 mark partial (to make them obey), 2 marks full (expanded explanation)

*Also accept ‘for standardisation between participants’ (1 mark)*

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

**(a) Describe one physical aspect of the prison. [2]**

most likely:

*prison itself:* 35ft, basement, psychology building, one entrance door to cell block, observation screen, cells, closet for solitary confinement (2 × 2 × 7ft, unlit).

*cells:* 6 × 9ft, converted lab, black steel-barred doors, cot (mattress, sheet, pillow)

*guards' quarters:* adjacent wing, for changing and relaxing, bedrooms, interview room

*yard:* video recorder, space for observers

1 partial (simple description), 2 full (expanded description)

**NB credit only best if more than one described**

**(b) What was the least frequent form of behaviour seen during the experiment and how many times was it seen? [2]**

breakdown with (psychosomatic) rash/leaving prison because of rash;

helping;

just once;

1 mark partial: either 'helping' or 'emotional problems leading to a rash'

2 marks full: both behaviour and frequency

**NB** no other behaviours occurred just once.

**6 The participants (boys) in study 1 by Tajfel (intergroup categorisation) estimated numbers of dots and were then divided into groups randomly. However, the boys were told two possible 'reasons' for the way they had been divided into groups.**

**(a) Describe one of these 'reasons'. [2]**

"They were told that in judgments of this kind some people consistently overestimate the number of dots and some consistently underestimate the number, but that these tendencies are in no way related to accuracy."

"In the other condition the boys were told that some people are consistently more accurate than others."

1 mark partial (one reason explain briefly)

2 marks full (one reason described in some detailed, e.g. "over and underestimators told they had either estimated more dots than there 'really' were, or less" or "accurate boys told they were good at estimating the number of dots, inaccurate ones told they weren't")

**NB credit only best if more than one described**

**NB** Candidates may interpret 'reason' to mean just one 'half' of a reason (e.g. just 'overestimators'). If detailed enough, can still gain 2.

e.g. over and underestimators = 2 marks

told based on estimation of dots, and if told their estimate was high they would be an overestimator = 2 marks

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- (b) Explain why it was necessary to deceive the boys about the way they had been grouped. [2]

To ensure that there were no actual differences between the boys in each group / so that the reason for discrimination was minimal/“defined by flimsy and unimportant criteria”

1 mark partial (brief description), 2 marks full (clear description)

e.g. So they believe there are differences; even if there are not = 2 marks

**NB** The aim of the random allocation was **not** to avoid demand characteristics but it would have had this effect, so 1 mark.

**NB** Question is asking about reason for deception, *not reason for creating groups* (i.e. not asking about aim).

- 7 In the study by Freud he describes little Hans’s ‘granddaddy’ fantasy about Hans having his own children.

- (a) Describe this fantasy. [2]

Hans’s mother is the mother of his own children, his father is their granddaddy. Hans agrees he’d like to be married to his mother.

1 mark partial (brief description), 2 marks full (expanded description)

- (b) Explain how Freud related this fantasy to the resolution of the Oedipus complex. [2]

By marrying his mother and promoting his father to a marriage with his grandmother, he overcomes the need to kill his father.

1 mark partial (brief description), 2 marks full (expanded description)

**NB** Superiority over father and identification can earn marks

- 8 Nelson investigated children’s morals.

- (a) Name the research method used in the studies by Nelson and justify your answer. [2]

1 mark partial (statement of plausible method without justification, experiment/lab experiment/field experiment),

2 marks full (statement of plausible method with appropriate justification, related to Nelson)

*experiment*; because there is an *IV* of age/explicit or implicit motive/motive first or second and a *DV* of ‘goodness’

*lab* experiment; because the *IV* of age/ explicit or implicit motive/motive first or second is being deliberately manipulated when other factors (e.g. age/explicit or implicit motive/motive and outcome order) first or second *are being controlled*

*field* experiment; because the children are being asked questions about the behaviour of children in pictures, which is *the kind of thing young children do get asked in school*

**NB** Accept appropriate justification of research technique, e.g. self report/questionnaires; because used smiley rating scale to measure opinion of ‘goodness’

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**(b) Describe the practice trials the children had before the main study. [2]**

familiarised with points of rating scale, two practice stories to define ‘very good’ (motive and outcome) and ‘very bad’ (motive and outcome) ends. ‘Motive explicit’ children also given practice with motive cartoon conventions.

1 mark partial (brief description), 2 marks full (expanded description)

e.g. Were told stories = 0 marks

**9 In the study by Dement and Kleitman (sleep and dreaming), participants were awoken by a loud doorbell.**

**(a) Describe what the participants were then expected to do. [2]**

state dreaming or not; relate dream content; into recorder; say 5 or 15 minutes;

1 mark partial (simple statement, probably ‘say if dreaming’ / ‘relate dream content’)

2 marks full (detailed description, e.g. adding either detail of recording – must be clear that it is spoken, not written – or possible questioning)

**(b) Explain why it was important that the doorbell was loud. [2]**

“To ensure immediate awakening in all levels of sleep”

So that they were no more likely to recall dreams (if they occurred) in one stage than another (if they were more likely to forget them if woken slowly)

1 mark partial (simple statement, probably partial quote from text, to wake them)

2 marks full (2 details or explanation, e.g. of why immediate waking from all stages was necessary)

e.g. To wake them = 1 mark

To wake them immediately = 2 marks

To wake them from any sleep stage = 2 marks

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10 In the study by Maguire et al. (taxi drivers), PET scans were taken during a baseline task for comparison with the PET scans taken during experimental tasks.

(a) Describe the baseline task. [2]

**repetition** of numbers  
(two) **four digit numbers**

1 mark partial (e.g. 'repetition of numbers') (accept 'recall'/'remember')  
2 marks full (as bold above)

**NB** question is asking for actual task, not why

(b) Explain how the baseline task acted as a control. [2]

controlled for brain activity during speech output  
so that relative and absolute changes in brain activity during the experimental tasks could be distinguished

1 mark partial (e.g. 'to see how just speaking affected brain activity')  
2 marks full (e.g. 'to see the difference between just talking and giving verbal responses to the experimental tasks')

11 In the study by Demattè et al., facial stimuli of different levels of attractiveness were used.

(a) Describe the stimulus materials (the faces). [2]

40, male, 13 × 17cm images, (20) high and (20) low attractiveness

1 mark per feature × 2

**NB** ethnicity, colour and age are all **incorrect**

(b) A within-participants (repeated measures) design was used to test level of attractiveness. Explain why this design was chosen. [2]

To control for the individual's personal preferences for smells and faces / to reduce effect of individual differences

1 mark partial (brief explanation), 2 marks full (expanded explanation)

**NB** Description of design = 0 marks

**NB** needs reason why

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**12 In the study by Rosenhan (sane in insane places), the pseudo-patients lied when they claimed to be hearing voices.**

**(a) What other lies did they tell during their appointment at the hospital? [2]**

Falsified name, vocation and employment (accept 'background')

1 mark per lie × 2

**NB** Address is **incorrect**

**(b) Suggest why it was important that the pseudo-patients told the lies you have described in part (a). [2]**

In order to protect themselves, e.g. their health records / their jobs  
So that they wouldn't be suspected, if they were in a psychology-related discipline

1 mark partial (brief explanation), 2 marks full (expanded explanation)

e.g. lie of hearing voices = 0 marks

**13 In the study by Thigpen and Cleckley (multiple personality disorder), before the researchers were aware of Eve Black, Eve White reported hearing a voice in her head.**

**(a) What suggested that this was not a symptom of a schizoid or psychotic disorder? [2]**

(Her hesitance in referring to it 'Did the occasional impression of hearing an imaginary voice indicate that she was "insane"?) i.e. calling it imaginary  
Her rationality/surprise/embarrassment (like 'an experienced psychiatrist in robust mental health might feel if, with full retention of insight, he heard himself similarly addressed.')

1 mark partial (brief explanation), 2 marks full (expanded explanation)

she was aware hearing voices was odd (1 mark)

she knew hearing voices was abnormal as she felt embarrassed by it (2 marks)

She did not have any other schizophrenia-like symptoms (1 mark)

**(b) With regard to seeking social company, how did Eve Black's behaviour differ from Eve White's behaviour? [2]**

freer expression (accept more confident/talkative/attention-seeking)  
avoids family/friends  
seeks company of strangers/loose acquaintances

1 mark partial (brief explanation), 2 marks full (expanded explanation, e.g. contrast to EW)

e.g. More sociable = 0

**NB** No other differences (e.g. handwriting) acceptable



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**14 Billington et al. (empathising and systemising) used the forced-choice Embedded Figures Test (FC-EFT).**

**(a) Describe the FC-EFT. [2]**

1 mark partial (brief explanation), 2 marks full (expanded explanation)

'Test to find an embedded figure' = 0 marks (in question)

'Test to find a shape within a different/complex shape' = 1 mark

'Test to choose between two (coloured) shapes/figures to say which has a hidden (black and white) within it) = 2 marks

**(b) What did the results of the FC-EFT show? [2]**

physical sciences students > humanities on FC-EFT, i.e. they are better at systemising even though there was no sex difference on the FC-EFT  
so systemising is a better predictor of degree choice than gender

1 mark partial (brief explanation), 2 marks full (expanded explanation)

**15 From the study by Veale and Riley (mirror gazing) describe two ways in which the body dysmorphic disorder (BDD) patients avoided mirrors. [4]**

The ways were:

avoiding all except hand mirrors;

avoiding bad/unsafe mirrors; e.g. ones leading to distress/bad image in the past); including avoiding mirrors in the wrong light/tilted wrongly);

avoiding mirrors in public/social places; using only in private;

avoiding unobscured mirrors; i.e. using cracked/dusty/dirty ones/with soap on face

avoiding mirrors between bouts of excess gazing;

2 marks per piece of qualitative data described × 2

**NB** No marks for recommendations

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### Section B

16 Use one of the studies listed below to evaluate the use of snapshot studies in psychology.

Piliavin et al. (subway Samaritans)

Bandura et al. (aggression)

Schachter and Singer (emotion)

[10]

No marks for description of study.

Max 5 if only consider strengths or weaknesses.

Comment	Mark
No answer or incorrect answer.	0
Anecdotal discussion, brief detail, minimal focus. Very limited range. Discussion may be inaccurate, incomplete or muddled.	1–3
Either points are limited to illustrating strengths or weaknesses of snapshot studies without reference to the study OR lack of depth and/or breadth. The answer shows some understanding.	4–5
Strengths and weaknesses of snapshot studies are considered and are focused on the study although they may be imbalanced in terms of quality or quantity. The answer shows good discussion with reasonable understanding.	6–7
Balance of detail between strengths and weaknesses of snapshot studies and both are focused on the study. Discussion is detailed with good understanding and clear expression.	8–10

Examples of possible discussion points:

#### Piliavin et al.

- *strengths* of snapshot studies illustrated by being able to collect data in just a few subway journeys, so each one is very similar, reducing extraneous variables between sessions
- also because participants are likely to be similar unlike studies which take a long time when daily/seasonal/generational/cultural differences may influence findings whereas this study's participants were all weekday subway travellers
- *weaknesses* of snapshot studies illustrated by potential lack of generalisability because situations all similar therefore don't reflect real variability, e.g. if subway was more crowded at the weekend/less so late at night
- or over longer periods of time when attitudes might change, e.g. just after news reports of muggings people might be even less likely to help the 'drunk' victim
- only one moment in each traveller's day. Some people might have been influenced by internal factors such as being fed up so not helped for that reason.

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### Bandura et al.

- *strengths* of snapshot studies illustrated by being able to collect data in just a few hours, so each child's reactions would be very similar, e.g. no differences like wet playtimes making them more aggressive, reducing extraneous variables between observations
- also because participants are likely to be similar unlike studies which take a long time when seasonal/generational/cultural differences may influence findings whereas this study's participants are likely to have all had similar cultural influence, e.g. from trends in violence in TV programmes
- *weaknesses* of snapshot studies illustrated by potential lack of generalisability because situations all similar therefore don't reflect real variability, e.g. sometimes adults are aggressive so act as models but generally they tell children off for aggression
- only one moment in each child's behavioural stream. Even though they controlled for 'typical' aggressiveness by prescreening, some children might have had a "bad morning".

### Schachter and Singer

- *strengths* of snapshot studies illustrated by being able to collect data in just a few hours, so each person's reactions would be very similar, e.g. no differences like how things were going on their university course making them more aggressive, reducing extraneous variables between sessions with the stooge
- also because participants are likely to be similar unlike studies which take a long time when seasonal/generational/cultural differences may influence findings whereas this study's participants are likely to have all had similar cultural influence, e.g. from trends in violence in current films
- *weaknesses* of snapshot studies illustrated by potential lack of generalisability because situation is time limited so doesn't reflect real variability, e.g. generally anger 'mounts up' over time – sometimes a lot more than the approx. 20 minute exposure to the stooge
- only one moment in each individual's behavioural stream. Even though they were comparing manipulation by the two types of stooge, some participants might have been having a "bad day".

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17 Discuss the strengths and weaknesses of the developmental approach to psychology using one of the studies listed below.

Langlois et al. (infant facial preference)

Nelson (children's morals)

Held and Hein (kitten carousel)

[10]

No marks for description of study.

Max 5 if only consider strengths or weaknesses.

Comment	Mark
No answer or incorrect answer.	0
Anecdotal evaluation, brief detail, minimal focus. Very limited range. Evaluation may be inaccurate, incomplete or muddled.	1–3
Points illustrating the contribution of developmental psychology lack depth and/or breadth. The answer may be general rather than focused on study. Shows some understanding.	4–5
Strengths and weaknesses of developmental psychology are considered and argument is focused on the study although the evaluation may be imbalanced in terms of quality and/or depth. The answer shows reasonable understanding.	6–7
Balance of detail between strengths and weaknesses of developmental psychology and these are focused on the study. Evaluation is detailed with good understanding and clear expression.	8–10

Examples of possible evaluation points:

**Langlois et al.**

- *strengths* of the developmental approach illustrated by being able to make comparisons using very young babies using a preferential looking technique so unlikely that nurture (rather than nature) has played a part in their choices
- the participants were very young so unlikely to be influenced by demand characteristics and possible bias which could have been influential from the mum was avoided by her not being able to see what the baby could see
- *weaknesses* of the developmental approach illustrated by difficulties with babies as participants, many were excluded for different reasons (e.g. fussing) and this may mean that the sample is skewed (e.g. if fussy babies preferred a certain sort of face)
- only able to measure responses by observation. Young participants can't be asked reasons for choice of faces so unable to generate detailed data from which explanations might more easily be gained.

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### **Nelson**

- *strengths* of the developmental approach illustrated by being able to make comparisons using very young children whose moral decision making is quite unsophisticated so not too many variables need to be considered whereas for adults many additional factors (e.g. legality, fairness) might influence decision beyond intention/outcome or explicit/implicit
- the participants were young so unlikely to be influenced by demand characteristics or social desirability
- *weaknesses* of the developmental approach illustrated by misunderstanding precisely because the participants are young. This would mean cognition rather than morality would determine their responses
- difficult for the youngest children to justify the reasons for their moral choices so comparisons could not be made on the basis of qualitative data about their decisions.

### **Held and Hein**

- *strengths* of the developmental approach illustrated by being able to make comparisons using very young animals whose perception can only have been affected by the nurture (visuo-motor experience) controlled by the researchers rather than by any other experiences
- as animals are young, little chance of attachment of the kittens to researcher which can interfere with behaviour in the test situation.
- *weaknesses* of the developmental approach even though the visually-guided movement was rigorously controlled, other maturational changes may have accidentally been affected. We cannot be sure that there were no other effects on development that had confounding effects (e.g. if the active and passive kittens smelled different – from the apparatus or their level of stress – they may have been treated differently by litter mates or the mother, which in turn could have affected development)
- developmental processes are affected by many factors. As Held and Hein used animals, their maturational processes may be different from humans anyway.