**CAMBRIDGE INTERNATIONAL EXAMINATIONS**

**GCE Advanced Subsidiary Level and GCE Advanced Level**

# MARK SCHEME for the May/June 2013 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 2013 series for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level components and some Ordinary Level components.

CAMBRIDGE
International Examinations

## Section A

**1 Describe <u>two</u> aims from the study by Mann et al. (lying). [4]**

Most likely:
- to investigate whether there are systematic differences in behaviour between lying and truth-telling;
- to investigate individual differences in behaviour during lying and truth-telling;
- to investigate real-life lying (of criminal);
- to investigate lying in high-stake settings (suspected of murder);
- to extend the work of Vrij and Mann (2001).

Accept other reasonable aims. No marks for 'cognitive load' (explanation of expectation, not aim).
1 mark partial, 2 marks full x2

**2 From the study by Loftus and Pickrell (false memories):**

**(a) Describe how the sample was obtained. [2]**

Opportunity sampling
"They were recruited by University of Washington students;
each student provided a pair of individuals,
which included both a subject and the subject's relative".

1 mark partial, 2 marks full (problem identified by term, plus some detail, or good detail)
*Does not need to relate to L&P for 2 marks*

**(b) Explain <u>one</u> disadvantage of sampling in this way. [2]**

Most likely:
- Sample bias: All the participants will have known a Washington University student, so may have other important characteristics in common making them less representative *or gender bias because more males (and findings may not generalise to females)*
- Demand characteristics: All the participants will have known a psychology student, this might have made them more suspicious about the experiment.

1 mark partial, 2 marks full (problem identified by term, plus some detail, or good detail)

**3 The study by Baron-Cohen et al. (eyes test) compared Asperger syndrome/high-functioning autism (AS/HFA) and control groups.**

**(a) A graph was used to show the spread of eyes test scores in the control groups. Describe the general shape of this graph. [2]**

Graph is bar chart showing distribution of scores on eyes test for groups 2 and 3.
symmetrical distribution/same both sides;
highest point is in the middle / mean/median/mode is highest point;
normal distribution.

1 mark partial ('normal distribution' or one idea e.g. 'bell-shaped'), 2 marks full (e.g. symmetrical and monomodal)

© Cambridge International Examinations 2013

**(b) Describe the difference in results on the eyes test between the AS/HFA group and any of the controls. [2]**

AS/HFA lower than all control groups.
Group 4 IQ matched controls higher than AS/HFA (30.9 cf 21.9)
Group 3 Students: all (28.0); males (27.3); females (28.6)
Group 2 General population: all (26.2); males (26.0); females (26.4)

1 mark for 'higher' or 'lower'; numbers with no description.
2 marks for identification of group/difference/numbers.

Numbers are not required for max mark.

**4 Milgram investigated the effects of payment on obligation to obey using undergraduates who were <u>not</u> paid.**

**(a) What were the results of this investigation? [2]**

Results for unpaid participants "very similar to those obtained with paid subjects"
1 mark partial ('similar'), 2 marks full (comparison)
NB Milgram doesn't provide numerical data in his paper (see note 4, p 377) *"43 subjects, undergraduates at Yale University, were run in the experiment without payment. The results are very similar to those obtained with paid subjects."*

**(b) What do these results tell us about the sense of obligation for Milgram's original participants? [2]**

Most likely:
- Obedience did not depend on payment
- Obedience must have been caused by other factors (in the situation) such as the location/lab coat

1 mark partial ('obedience not caused by payment'), 2 marks full (expansion e.g. reference to alternative causes)

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

**(a) The guards were given a uniform. Identify <u>two</u> items of the uniform. [2]**

Most likely:
khaki shirt, khaki trousers, whistle, wooden baton, reflecting sunglasses.

Any two for maximum mark.

© Cambridge International Examinations 2013

**(b) Describe the effect the uniform had on the behaviour of the guards. [2]**

- Guards adopted role fully
- Guards went beyond their role
- Guards even asked for extra duty.

1 mark partial (e.g. military attitude; authority/control/power)/what data is, 2 marks full.

**6 The study by Piliavin et al. (subway Samaritans) used two observers to collect quantitative data.**

**(a) Suggest <u>one</u> weakness with the way in which the observational data was collected. [2]**

Most likely:
- Two observers recording **different** things so no check regarding reliability
- Bystanders may have obscured view of one or both observers
- Bystanders may have been influenced by presence of observers
- Events may have happened too quickly for the observers to record all the data

1 mark partial, 2 marks full (expansion).

**(b) Suggest <u>one</u> way to improve the collection of data in this study. [2]**

Most likely:
- use of more observers so can do inter-rater reliability check
- record actions on camera so no need for people to observe and can replay later

1 mark partial, 2 marks full (expansion).
The improvement does not have to link to part (a).

**7 From study 1 by Tajfel on intergroup categorisation, give <u>four</u> features of the sample. [4]**

Most likely:
64, boys, aged 14–15, state/comprehensive school, in (suburbs of) Bristol, same house/same form, knew each other well.

1 mark per feature x4

**8 Freud studied little Hans.**

**(a) Give <u>one</u> advantage of the case study method in this study. [2]**

Most likely:
- This 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. No mark for example only.

© Cambridge International Examinations 2013

**(b) Give <u>one</u> disadvantage of the case study method in this study. [2]**

Most likely:
- Could be emotional involvement of father and Hans / father and Freud.
- Vested interest in finding data to support claims.
- Cannot generalise from one individual.

1 mark for disadvantage and 1 mark for relating to study. No mark for example only.

**9 The study by Nelson on children's morals was an experiment. One independent variable was 'motive'. Explain the <u>two</u> levels of the 'motive' variable. [4]**

Good motive (positive intention): This boy was playing with a ball; his friend did not have anything to play with. He wanted to throw the ball to his friend so they could play catch together with the ball.
Bad motive (negative intention): This boy was playing with a ball; he was very mad at his friend that day. He wanted to throw the ball at his friend so he could hit him on purpose."

No marks for 'motive implicit/motive explicit' as it is a different IV.
1 mark partial (stated only i.e. 'good' and 'bad'), 2 marks full (expansion) x2

**10 From the study by Dement and Kleitman (sleep and dreaming):**

**(a) Describe how eye movements were recorded. [2]**

2 or more electrodes
attached near the eyes
to record corneo-retinal (electrical) potential (as the eyes moved)
[wires attached to top of head to allow free movement]
[wires to EEG in adjacent room]

No marks for description of results/what data is.
1 mark (lacks detail), 2 marks full. [allow these points once only in (a) or (b)]

**(b) Describe how brain waves were recorded. [2]**

2 or 3 electrodes
attached to scalp
[wires attached to top of head to allow free movement]
[wires to EEG in adjacent room]
EEG run continuously (throughout sleep period)
paper speed of 3 or 6 mm/sec

No marks for description of results.
1 mark (lacks detail), 2 marks full.

© Cambridge International Examinations 2013

**11 State four controls from the study by Maguire et al. (taxi drivers). [4]**

Most likely:
- PET scans all same time (8 minutes) apart
- radioactivity counts all made over same time (90sec) periods
- use of baseline speech output as comparison
- landmarks selected which no participants had personally visited
- all films had been seen at least five times
- all participants male; all right-handed; all blindfolded
- all 3 years experience of taxi driving;
- all licensed/have 'The Knowledge'/passed test.
- London taxi drivers.

No marks for 'same equipment'; 'same environment'; 'taxi drivers'.

Credit any other correct control.
1 mark per **brief** control x4.

**12 The study by Demattè et al. (smells and facial attractiveness) was an experiment.**

**(a) The tests of 'facial attractiveness' and 'odour pleasantness' used the same experimental design. Identify and outline this experimental design. [2]**

repeated measures (= within participants/within subjects/within groups)
the same (all) participants do all conditions

1 mark (identified or described only), 2 marks full.

**(b) Explain one advantage of this experimental design. [2]**

reduces effects of individual differences
so differences in the DV more likely to be due to the IV

1 mark (lacks detail), 2 marks full (expansion or related to study).

**13 The study by Rosenhan (sane in insane places) used pseudo-patients.**

**(a) Briefly describe the pseudo-patients. [2]**

Most likely: 8 people, three women, five men. Range of occupations.

1 mark for each feature.

**(b) Describe how the pseudo-patients gained access to the mental institutions. [2]**

Most likely:
phoned hospital for appointment; claimed hearing (same sex) voices.
Voices: empty, hollow and thud.

1 mark partial (incomplete lacking sufficient detail or explanation to demonstrate clear understanding), 2 marks full.

© Cambridge International Examinations 2013

**14 Billington et al. (empathising and systemising) used self reports, such as the revised systemising questionnaire (SQ-R), to collect data.**

**(a) What is meant by the term 'self report'? [2]**

participant provides data to the researcher e.g. in response to questions rather than the researcher making direct observations (of behaviour)

1 mark partial (incomplete lacking sufficient detail or explanation to demonstrate clear understanding e.g. 'questionnaire' or 'interview'), 2 marks full.

**(b) What were the results of the SQ-R for males and females? [2]**

There is no isolated SQ-R data for males and females; it is combined with EQ and subject:
1. Brain type (SQ-R combined with EQ data):
"66% of males were categorised as either Type S or Extreme Type S compared to 28.8% of females." OR "36.8% of females were categorised as Type E or Extreme Type E compared to males at 10.3%."
OR
2. Females physical SQ-R mean of 61.23; Males physical SQ-R mean of 65.46; OR
Females humanities SQ-R mean of 51.54; Males humanities SQ-R mean of 58.65.

No credit for results of males and females doing sciences or humanities; FC-EFT test or eyes test.
1 mark partial (e.g. statement of direction of difference only), 2 marks full (e.g. direction and what is being compared).

**15 Describe <u>two</u> conclusions from the study by Veale and Riley on mirror gazing. [4]**

"Mirror gazing in BDD consists of a series of complex safety behaviours. It does not follow a simple model of anxiety reduction that occurs in the compulsive checking of obsessive–compulsive disorder."

BDD patients:
- BDD patients hold a number of problematic beliefs and behaviours in their mirror use.
- hope they will look different from their body image/will feel comfortable, but mirror gazing is counterproductive
- are uncertain about their body image, so seek confirmation (although mirror gazing actually causes confusion)
- believe they will feel worse if they resist mirror gazing, but still find it distressing
- motivated to camouflage appearance by excessive grooming, accounting for excessive time in front of mirrors

NB no marks for '*encouraged to develop the following goals..list of 9 points*'
1 mark partial (simple statement of conclusion), 2 marks full (expansion) x2.

© Cambridge International Examinations 2013

## Section B

**16 Evaluate <u>one</u> of the studies listed below in terms of <u>two</u> strengths.**

**Schachter and Singer (emotion)**
**Maguire et al. (taxi drivers)**
**Thigpen and Cleckley (multiple personality disorder)** **[10]**

No marks for description of study. Description of strengths and evaluation of strengths are creditworthy; either approach, or a combination, can earn full marks.

| 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 |
| Either points illustrating strengths of the study lack depth and/or breadth or only one strength is considered. The answer is general rather than focused on study but shows some understanding. | 4–5 |
| Two strengths of the study 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 the two strengths and both are focused on the study. Evaluation is detailed with good understanding and clear expression. | 8–10 |

Examples of possible evaluation points:

**Schachter and Singer**
- stooge/use of one-way mirror: limit demand characteristics
- controls: e.g. for actual effects of adrenalin (informed v misinformed), standardised procedure for stooge
- ethics: health check

**Maguire**
- reliability: PET – highly consistent
- controls: e.g. all right handed
- validity: e.g. familiar films chosen on basis of participants' initial reports
- ethics: written informed consent, hospital ethical committee, radioactivity certificate

**Thigpen and Cleckley**
- validity: data direct from individual(s), i.e. Eves; lots of different sources of data backing up same ideas
- flexible questioning: allowed collection of detailed, in-depth, relevant data
- longitudinal: able to follow progress of personalities

© Cambridge International Examinations 2013

**17 Discuss the relative strengths of using animals versus human participants to investigate development. Use <u>one</u> of the studies listed below as an example.**

**Held and Hein (kitten carousel)**
**Bandura et al. (aggression)**
**Langlois et al. (infant facial preference)** **[10]**

No marks for description of study.

| 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 |
| Either points illustrating human/animal strengths lack depth and/or breadth or only humans or animals are considered. The answer is general rather than focused on study but shows some understanding. | 4–5 |
| Both human and animal points 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 human and animal points and both are focused on the study. Evaluation is detailed with good understanding and clear expression. | 8–10 |

Examples of possible evaluation points:

**Held and Hein**
- animals better because can remove from mother, can confine, expose to deprivation
- humans better because could test from earlier age as animals born with eyes closed

**Bandura et al.**
- humans better because researchers able to select models which are likely to be observed; findings will generalise to other children
- animals better because could raise without exposure to any aggressive models so be more sure that effects are due to experimental manipulation; can expose to aggressive models for longer without risk of long-term harmful increase in aggressiveness

**Langlois et al.**
- humans better because easier to judge reasons for preference in humans (i.e. attractiveness), animals may have reasons we don't understand
- animals better because can use larger samples as animals readily available and can be kept on site

© Cambridge International Examinations 2013