CAMBRIDGE INTERNATIONAL EXAMINATIONS

GCE Advanced Subsidiary Level and GCE Advanced Level

MARK SCHEME for the October/November 2013 series

9698 PSYCHOLOGY

9698/21 Paper 2 (Core Studies 2), maximum raw mark 70

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 October/November 2013 series for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level components and some Ordinary Level components.

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Section A

1 Bandura et al (aggression) conducted a laboratory experiment to investigate the imitation of an aggressive role model in young children. An alternative way to investigate this would be to conduct a field experiment, for example, in a school.

(a) Describe the laboratory experiment as a research method and outline how it was used in the Bandura et al study. [5]

Any five correct points (2 marks for description of method and 3 for Bandura **or** 3 marks for description of method and 2 for Bandura).
1 mark for each point up to a maximum of five points.
No answer or incorrect answer, 0.

Indicative content

This is a study that takes place in a controlled environment with an IV and a DV.

In the Bandura et al study there were three IVs:
gender of child,
gender of model,
type of model – aggressive or non-aggressive.
The DV was the behaviour of the child observed in the 3rd room of the study. The researchers also noted down comments made by the children about the model's behaviour.
The study was controlled via similar procedures for all participants (example can get a mark).
Matched pairs design was used (example of how matched can get a mark).

(b) Design an alternative study to the Bandura et al study using the field experiment method and describe how it could be conducted. [10]

Candidates should describe the who, what, when, where and how.

Major omissions include an indication of where, what and how. Candidates must describe how the DV is collected. Candidates must give an indication, even if implied, of where the study was carried out. A description of the IV and DV is required (although the candidate doesn't have to label these).

Minor omissions include who and detail of where.

It is possible to achieve 9 marks with a small minor omission.

If very unethical limit to 4 marks, if somewhat unethical limit to 6 marks.

Alternative study is incomprehensible.	[0]
Alternative study is muddled and impossible to conduct.	[1–2]
Alternative study is muddled and/or there are major omissions.	[3–4]
Alternative study is clear with a few minor omissions and possible.	[5–6]
Alternative study is described with one minor omission and in some detail.	[7–8]
Alternative study is described in sufficient detail to be replicable.	[9–10]

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(c) Evaluate this alternative way of studying aggression in practical and ethical terms. [10]

Indicative content

Candidates need to consider a number of points regarding their study. These points can be both positive and/or negative.

Appropriate points could include a discussion about:
Ethics of using children.
Ethics of field experiments.
Ecological validity of field experiments.
Qualitative/quantitative data used and strengths and/or weaknesses of each, researcher bias in collecting data in the field.
Generalisability of results using children.
Reliability of measuring device and/or field experiment method.
Validity of measuring device and/or field experiment method.
Demand characteristics if participants realise they are in an experiment.
Any other appropriate point.

In order to achieve more than four marks the candidate must link their points to their investigation described in part **(b)**.

Candidates must discuss both practical and ethical points to achieve 7+ marks.

No comment on practical/ethical issues.	[0]
Comment on practical and/or ethical issues is muddled and weak.	[1–2]
Comment on practical and ethical issues which is not specific to the investigation **OR** Comment on one issue which is simplistic but specific to investigation.	[3–4]
Consideration of both practical and ethical issues which is simplistic but specific to investigation **OR** Consideration of one issue which is detailed and specific to investigation.	[5–6]
Consideration of both practical and ethical issues which is good but brief and specific to investigation.	[7–8]
Consideration of both practical and ethical issues which is detailed and directly relevant to the investigation.	[9–10]

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2 Rosenhan (sane in insane places) carried out a participant observation in a mental institution.

(a) What is meant by 'qualitative data'? [2]

1 mark partial
2 marks full

Indicative content
Descriptive/in-depth/detailed data of participants behaviour, thoughts and feelings.

In depth data – 1 mark.
In depth data often obtained via open questions – 2 marks.

Allow examples although on their own would receive a maximum of 1 mark.

(b) Describe <u>one</u> piece of qualitative data from the Rosenhan study. [3]

1–2 marks partial
3 marks full

Indicative content
Any finding from the Rosenhan study that is qualitative. Do not credit evaluation points.
Being described as having Oral acquisitive syndrome when waiting outside the cafeteria.
Treatment of patients (e.g. beating up a patient in the corridor).
Pacing up and down and being asked if they were nervous.

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(c) Discuss the strengths and weaknesses of making generalisations from the study by Rosenhan. [10]

Appropriate strengths and weaknesses will be varied. These could include:

Strengths
Ecological validity of the study in the mental hospital.
Usefulness to the psychiatric community/patients/carers/etc.
Representativeness of the 12 hospitals.
Validity of the detailed qualitative records.

Weaknesses
Reliability – procedures followed by pseudopatients not standardised.
Validity – due to the data being subjective.
Determinism – factors other than labelling could have caused the results.
Generalisability of data is poor due to the ethnocentric nature of the study being in the USA
Subjective data – nothing positive was recorded by the pseudopatients. Difficult to believe nothing good happened to any of them.
Etc.

No comment on generalisations.	[0]
Comment given but muddled and weak.	[1–2]
Consideration of both strengths and weaknesses but not specific to investigation **OR** Consideration of either strength or a weakness but is simplistic but specific to investigations.	[3–4]
Consideration of two or more points (at least one strength and one weakness) which are clear and specific to investigation.	[5–6]
Consideration of both strengths and weaknesses which is good but brief and specific to investigations.	[7–8]
Consideration of both strengths and weaknesses which is detailed and directly relevant to the investigations.	[9–10]

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(d) Compare and contrast the use of quantitative and qualitative data using Rosenhan's study as an example. [10]

Candidates may describe/evaluate quantitative/qualitative data with no comparison point. These candidates can achieve up to 4 marks maximum.

Appropriate comparison points will be varied. These could include:

Ability to show clear comparisons (e.g. responses by staff to pseudopatient's questioning).
Detail (things that were said to pseudopatients).
Ability to use statistical tests (e.g. on responses by staff to pseudopatients).
Validity (e.g. more depth in qualitative data of pseudopatient diaries, but is subjective).
Reliability (e.g. difficult to replicate qualitative – the diaries were not written in the same way by each pseudopatient whereas easy to replicate the questioning of staff as all of the pseudopatients did this in the same way).
Reductionism versus holism (qualitative data is holistic – the diaries, whereas quantitative is reductionist – table of results of questioning of staff).
Usefulness – both types are useful for the different reasons mentioned above. Qualitative for its depth and quantitative for its statistics.

Any other appropriate point.

Maximum of 6 marks if candidate gives just comparisons **or** contrasts.

The answer does not give any creditworthy material.	[0]
Comment on a comparison/contrast issue which is muddled and weak **OR** brief descriptions/evaluation of qualitative/quantitative data.	[1–2]
Comment on comparison/contrast issues which is weak **OR** a clear and fairly detailed description/evaluation of qualitative/quantitative data.	[3–4]
Comments on comparison/contrast issue/s which are simplistic with few examples. This could be one detailed point.	[5–6]
Consideration of comparison and contrast issues which are fairly detailed with examples.	[7–8]
Consideration of comparison and contrast issues which are detailed and directly linked to relevant examples.	[9–10]

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Section B

3 (a) Outline what is meant by the 'physiological approach' in psychology. [2]

1 mark partial
2 marks full

The physiological approach is the scientific study of biological and physiological processes in the body and the effect these have on behaviour and psychological states.

Appropriate answers could include assumptions of the physiological approach.

Using the studies from the list below, answer the questions which follow.

Dement and Kleitman (sleep and dreaming)
Maguire et al (taxi drivers)
Demattè et al (smells and facial attractiveness)

(b) Describe how the data were collected in each of these studies. [9]

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

Dement and Kleitman: Participants go into a sleep lab and their EEG and EOG is recorded. Woken at various intervals in the night and asked if they had been dreaming and they recorded their answer into a tape recorder. Participants also estimated the length of their dream (5 or 15 minutes) and gave a summary of the dream content.

Maguire et al: Participants are given radioactive glucose which is read by a PET scanner. They are asked to describe four different memories (routes, film plots, famous landmarks and film frames) the PET scanner records the activity in different parts of the brain. Maguire was particularly interested in the activity of the hippocampus.

Demattè et al: The participants judged the attractiveness of 40 male faces presented briefly on a computer screen using a 9–point scale. Participants were simultaneously presented with either clean air or else with 1 of 4 odorants (2 pleasant and 2 unpleasant). It was a repeated measures design as participants experienced all odorants and the clean air control.

For each study	
No answer or incorrect answer.	[0]
Identification of point relevant to question but not related to study or comment from study but no point about data collection from the study. The description may be very brief or muddled.	[1]
Description of point about data collection explanation from the study. (Comment with a lack of understanding). A clear description that may lack some detail.	[2]
As above but with analysis (comment with comprehension) about data collection from the study. A clear description that is in sufficient detail.	[3]
Max mark	[9]

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(c) What problems may psychologists have when they investigate the physiological approach? [9]

Emphasis on problem. Answers supported with named (or other) studies. Each problem does not need a different study; can use same study.

Indicative content:

Equipment may be inaccurate.
The equipment used may give very basic readings (e.g. EEG).
Lacks detailed data.
No indication of participant's thoughts and feelings.
May be difficult to create studies that are ecologically valid.
May create unethical studies.
May be difficult to find a representative sample.
Participants may respond to demand characteristics if the study is unnatural.
The findings may offer a reductionist explanation of physiological processes and their effect on behaviour.
Or any other relevant problem.

Marks per point up to a MAXIMUM of three points.	
No answer or incorrect answer.	[0]
Identification of problem.	[1]
Description of problem related to investigating physiological approach **OR** a weak description of a problem related to investigating physiological approach and applied to a study.	[2]
Description of problem clearly related to investigating physiological approach and applied to the study effectively.	[3]
Max mark	[9]

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4 (a) Outline what is meant by the term 'psychometric test'. [2]

1 mark partial
2 marks full

An IQ test – 1 mark.
Mathematical measure of the mind – 2 marks.

Give 2 marks for a weak definition and an example.

Using the studies from the list below, answer the questions which follow.

Baron-Cohen et al (eyes test)
Thigpen and Cleckley (multiple personality disorder)
Billington et al (empathising and systemising)

(b) Describe the use of a psychometric test in each of these studies. [9]

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

Baron-Cohen et al: Group 1 (autistic/AS participants) and Group 4 (IQ matched controls) were given the short WAIS-R. This was to show that lack of advanced theory of mind is unconnected to IQ. Participants (Autistic/AS – Group 1, Group 3 – students and Group 4 – IQ matched controls) were also given the AQ test (Autistic Spectrum Quotient) to show the level of autism in these groups.

Thigpen and Cleckley: Eve White and Eve Black were given an IQ test. This was given to her to prove she had MPD and show the differences between the 2 personalities. She was also given a memory test.

Billington et al: Participants were given the EQ (Empathy Quotient) and the SQ-R (Systemising Quotient) to show the differences in the cognitive style of participants choosing physical science subjects and those choosing humanities subjects.

For each study	
No answer or incorrect answer.	[0]
Identification of point relevant to question but not related to study or comment from study but no point about psychometric testing from the study. The description may be very brief or muddled.	[1]
Description of point about psychometric testing from the study. (Comment with a lack of understanding). A clear description that may lack some detail.	[2]
As above but with analysis (comment with comprehension) about psychometric testing from the study. A clear description that is in sufficient detail.	[3]
Max mark	[9]

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(c) What are the advantages of using psychometric testing? [9]

Emphasis on advantages. Answers supported with named (or other) studies. Each advantage does not need a different study; can use same study.

Indicative content:

Advantages

Usefulness of findings.
Can easily compare results of participants.
Can compare results to norm referenced groups.
Can be used to quickly diagnose special needs, etc.
Numerical data which is seen as scientific.

Or any other relevant advantage.

Marks per point up to a MAXIMUM of three points.	
No answer or incorrect answer.	[0]
Identification of advantage.	[1]
Description of advantage related to using psychometric testing **or** a weak description of an advantage related to using psychometric testing and applied to a study.	[2]
Description of advantage related to using psychometric testing and applied to the study effectively.	[3]
Max mark	[9]

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