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Cambridge International Advanced Subsidiary and Advanced Level

MARK SCHEME for the October/November 2014 series

9698 PSYCHOLOGY

9698/13 Paper 1 (Core Studies 1), maximum raw mark 80

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Section A

1 In the study by Mann et al. (lying) inter-rater reliability was checked.

(a) What is meant by inter-rater reliability? [2]

the extent to which observers/coders/raters will produce the same observations when they watch the same events/video/truths and lies
so they correlate/achieved by operational definitions

1 mark partial (brief/partial explanation),
2 marks full (elaborated explanation)

[answer does not have to be contextualised to study but doing so may help] the (level of) agreement between coders when doing the same observations (2 marks)

allow two observers compare their data = 1 mark

two coders watch videos separately with the same checklist… = 1 mark (partial)

(b) Explain how inter-rater reliability was checked in this study. [2]

by asking both coders to rate a sample of (36) clips
and correlating their observations (using Pearson's)/ to see if they corresponded

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

2 In the study by Loftus and Pickrell (false memories) they describe a similar procedure used by Hyman et al. Describe <u>two</u> ways in which this study differed from that of Loftus and Pickrell. [4]

False memory = hospitalisation (not lost in mall)
aim = believed aim was to compare recall to parents (not childhood memory)
information with memories = given title and age
Also: given additional cues if not recalled (e.g. location)
encouraged to keep thinking about the memories between the first and second interviews

1 mark partial (identification of difference)
2 marks full (elaborated into a description of difference) × 2

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3 In the revised eyes test, Baron-Cohen et al. wanted to solve a problem about the comprehension of the words used to describe the mental states.

(a) Explain the possible problem with comprehension of words in the original eyes test. [2]

scores may have been lower if participants did not understand (so could only guess)
so HFA might appear to do worse than they are really because of their language delay

1 mark partial (effect of comprehension of words),
2 marks full (elaborated description e.g. not understanding would impair performance, or relative differences between groups)

NB comments about there only being two choices are irrelevant so do not earn marks

(b) Explain how they solved this problem in the revised eyes test. [2]

1 mark partial (mention of glossary),
2 marks full (elaborated description of glossary and/or its use)

4 In the study by Held and Hein, the kittens spent some of their time in the carousel apparatus.

(a) Describe how the kittens were kept when they were not in the carousel. [2]

with their mother and litter mates
in the dark (for the remaining 21 hours per day)

1 mark partial (e.g. with whom/in dark),
2 marks full (both 'with whom *and* in dark)

NB no marks for restating stem, i.e. not in the carousel/in a cage

(b) Why was their exposure to light restricted? [2]

so that they would not experience additional exposure to visually guided movement which would confound the results of the experiment (as a *control*)

NB it was **not** to reduce freezing/agitation/fear responses – these were the reasons for social rearing.

1 mark partial (*either* the experimental reason here in brief *or* a general term)
2 marks full (*either* the experimental reason here in detail *or* in brief using an appropriate term)

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5 In the study by Milgram (obedience), there was a 'teacher' and a 'learner'. Some results were collected by observation.

(a) Who was being observed, the teacher or the learner, and from where? [2]

The teacher
(Photographs were taken) through a one-way mirror

1 mark per correct comment × 2

(b) Describe <u>one</u> example of the observational data collected. [2]

Signs of tension: sweating, trembling, stuttering, biting lips, groaning, digging fingernails into flesh. Laughing/smiling (out of place), twitching, pulling earlobe, twisting hands, pushing fist into forehead
(full blown) *seizure*: violent, uncontrollable, (embarrassed, untoward, uncontrollable)
emotions: embarrassment, confidence (loss of)

1 mark partial (single word/simple description),
2 marks full (elaborated description)

6 Prior to their investigation, Haney, Banks and Zimbardo (prison simulation) identified three ways in which the prison system, despite reforms, was still failing. Describe <u>two</u> of these ways. [4]

pragmatic/practical: failure to **rehabilitate** or act as a **deterrent**
economic: the facilities are expensive to maintain/are not good value for money because they fail to… rehabilitate/deter.
humanitarian: **atrocities** are committed in, and because of, prisons

1 mark partial (identification of problem by name or brief description),
2 marks full (expansion of problem, e.g. name and description or detailed description)
2 marks per way in which the prison system is failing × 2

NB Pure description of Haney, Banks and Zimbardo's findings is not answering the question so = 0 marks

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7 In the study by Piliavin et al. (subway Samaritans) the effect of race on helping was investigated. Only one of the 'victims' was black but Piliavin et al. did not consider this to be a problem.

(a) Explain why having only one black victim might have been a problem. [2]

Because it is possible that something about the victim's personality/appearance other than their race would affect responses, making the findings invalid/biased.

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

NB 'not enough data' for black victim is insufficient, but plus 'because it limits generalisibility' would = 1 mark)

NB 'not the same number of trials with the black victim (so not valid) = 1 mark

(b) Describe when helping did differ for white and black victims and why. [2]

When the victim was drunk
possibly because the potential helpers thought there was a greater risk/that the problem was the victim's own fault.

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

8 From the study by Bandura et al. (aggression):

(a) Explain why they expected to find a sex difference in the behaviour of the children. [2]

previous research evidence: parents perceived to have distinct sex-appropriate behavioural preferences for children
informal observation:
parents reward sex-appropriate behaviour
e.g. girls playing cooking
parents punish sex-inappropriate behaviour (= differences in upbringing)
e.g. boy playing female games/cooking
differential reinforcement leads to 'differential habit strength': more likely to do previously rewarded behaviours/not do punished ones
aggression highly masculine-type behaviour (predisposed males have more testosterone)

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

NB 'because they believed they copied same-sex models' does not explain, so earns 0 marks

NB Because pre-existing levels of aggression observed by nursery teachers showed boys more aggressive = 1 mark.

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(b) Describe <u>one</u> piece of qualitative data which supports this expectation. [2]

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

More girls copied verbal aggression, like 'sock him on the nose' = 2 marks

9 In the conclusion of the study by Langlois et al. (infant facial preference), two reasons are suggested to explain why infants prefer attractive faces. Describe <u>both</u> of these reasons. [4]

Attractive faces are 'prototypes', more like the average; cognitive explanation;
If attractive faces are preferred, this promotes normalising/stabilising selection (i.e. against the extremes of the population), and such individuals are less likely to carry genetic abnormalities; evolutionary explanation;

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

1 explanation = 2 marks, × 2

NB less detail will be needed for explanation 1 to get full marks

10 The study by Schachter and Singer (emotion) used a physiological measure to assess the effect of epinephrine.

(a) Name this physiological measure and describe how it changed when epinephrine was given to the participants. [2]

pulse rate
in beats per minute/bpm
increased rate
in all conditions

1 mark partial ('faster'/only *either* pre *or* post data so no comparison)
2 marks full (any comparative pre and post data or reference to all conditions)

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(b) Describe how the change in participants given epinephrine differed between the euphoria and anger conditions. [2]

The anger groups' pulses were faster.
EpiInf: euphoria = 88.6, anger = 92.4 bpm
EpiIgn: euphoria = 85.6, anger = 96.8 bpm

1 mark partial ('anger faster'/only *either* euphoria *or* anger data or no comparative comment)
2 marks full (any comparative euphoria and anger comment or data)

Epinephrine produced a greater increase in pulse in anger, smaller increase in euphoria condition (2 marks)
In euphoria informed faster than ign/mis but in anger informed slower than ign (2 marks)

NB answers relating to any difference other than pulse between EPI groups between euphoria and anger = 0 marks

11 In the study by Dement and Kleitman (sleep and dreaming) they say that dreaming can be measured objectively and that this has useful applications.

(a) Use an example to describe what is meant by 'an objective measure'. [2]

A way to score a variable that is not affected by/is independent of personal viewpoint
e.g. EEG/EOG to identify when participant is dreaming

1 mark partial (incomplete definition or definition with no example, or example from study with no definition)
2 marks full (effective definition and example)

(b) Suggest <u>two</u> useful applications of the objective measurement of dreaming, either ones which Dement and Kleitman suggested or any other useful application. [2]

To study the effect of:
environmental changes
psychological stress
drugs
or any other appropriate suggestion

1 mark per application × 2

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12 From the study by Demattè et al. (smells and facial attractiveness):

(a) Explain why each smell was diluted differently. [2]

To match within odour category
for **perceived** intensity

1 mark partial (unclear or incomplete)
2 marks full (clear explanation, related to study)

'to make them weaker' = 0 marks
'to make them the same' = 0 marks (not *perceived* intensity)
'to make them the same in the 'pleasant' and in 'unpleasant' condition' = 1 mark (for category matching)
'to make them seem the same' = 1 mark (perceived intensity)
'to be sure the nice and nasty smells seemed equally strong' = 2 marks

(b) In the high <u>and</u> low facial attractiveness conditions, which pleasant odour produced the highest rating of attractiveness? [2]

high: male fragrance
low: male fragrance

1 mark for high, 1 mark for low (no data needed)

both higher for male fragrance = 2 marks

If candidate just writes 'male fragrance' only 1 mark because not clear whether they mean one or the other or both.

13 In the study by Rosenhan (sane in insane places) the pseudo-patients said some things that were true and others that were not in their appointment.

(a) Give <u>two</u> things the pseudo-patients said in their appointment that were true. [2]

details of their person (self) [accept appropriate examples, e.g. family, age]
history (past) [accept appropriate examples]
circumstances (present) [accept appropriate examples]

1 mark per detail × 2

(b) Give <u>two</u> things the pseudo-patients said in their appointment that were <u>not</u> true. [2]

hearing voices
name
vocation
employment

1 mark per detail × 2

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14 From the study by Thigpen and Cleckley (multiple personality disorder):

(a) Why is it useful for psychologists to obtain <u>qualitative</u> data? [2]

To provide in-depth results
so that they can record details which could be missed in specific numerical data collection which improves validity

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

(b) Why did Thigpen and Cleckley also need to collect <u>quantitative</u> data? [2]

Because they need to obtain specific comparisons between Eve's personalities (2 marks)

in order to demonstrate that multiple personalities differ in domains in which individuals are known to differ in measureable ways (1 mark)

1 mark partial (explanation without reference to study, however detailed/general statement about comparing personalities that could apply to qualitative data)
2 marks full (explanation with reference to study, however brief)

15 From the study by Veale and Riley (mirror gazing):

(a) Describe what was meant by a short mirror session. [2]

Any sessions in front of the mirror **during any day** that was **shorter than the longest** one for that day

1 mark partial (any shorter than longest)
2 marks full (any shorter than longest for that day)

(b) How did the length and frequency of short mirror sessions differ between the control and the body dysmorphic disorder (BDD) patients? [2]

BDDs had (many) more than controls but BDDs were slightly shorter / ('(about) the same length' /'no significant difference in length' = 1 mark)

Partial = correct comment on either length *or* frequency
Full = correct comment on both length and frequency

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Section B

16 Evaluate the laboratory experiment as a research method using <u>one</u> of the studies listed below.

Maguire et al. (taxi drivers)
Nelson (children's morals)
Tajfel (intergroup categorisation) **[10]**

No marks for description of study.
Max. 5 if only about strengths of lab experiments or only about weaknesses of lab experiments.

Comment	Mark
No answer or incorrect answer.	0
Anecdotal discussion, brief detail, minimal focus. Very limited range. Discussion may be inaccurate, incomplete or muddled. May evaluate the study itself, making only indirect or serendipitous reference to laboratory experiments in general.	1–3
Either points are limited to illustrating strengths or weaknesses of laboratory experiments *or* lack of depth and/or breadth. The answer may be general rather than focused on study. The answer shows some understanding.	4–5
Strengths and weaknesses of laboratory experiments 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 laboratory experiments and both are focused on the study. Discussion is detailed with good understanding and clear expression.	8–10

Examples of possible discussion points:

Maguire et al.

- *strengths:* lab experiments allow for rigorous controls, e.g. being blindfolded to ensure no visual interference, counterbalancing of order of tasks, landmarks they knew but had not visited etc.
- lab experiments enable direct comparison of variables, e.g. sequential/non-sequential, topographical/non-topographical as these can be manipulated by the researcher
- *weaknesses:* lab experiments may not represent real world situations, e.g. not often asked to describe a 'freeze frame' of a film whilst being brain-scanned
- lab experiments often contain cues that act as demand characteristics, so participants may respond in ways which they expect the experimenter to want. This is unlikely to have happened in this case as the participants couldn't affect their brain activation responses.

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Nelson

- *strengths:* lab experiments allow for rigorous controls, e.g. children given familiarisation tasks to ensure they all understood. Although in this case there were some differences, e.g. some children had to be asked questions if they didn't include all the information when they retold the story (e.g. they were asked 'why did the boy throw his ball?')
- lab experiments enable direct comparison of variables, e.g. explicit/implicit conditions differed only by the inclusion or not of a thought bubble
- *weaknesses:* lab experiments may not represent real world situations, e.g. although often asked about motives and about stories, not usually given lots of instructions and practice first
- lab experiments often contain cues that act as demand characteristics or cause order effects so the participants respond in ways they expect the experimenter to want. This is unlikely to have happened with respect to the motive preceding outcome order effect, as in study 2 this information was reversed.

Tajfel

- *strengths:* lab experiments allow for rigorous controls, e.g. measurement of discrimination using the matrices, making it objective.
- lab experiments enable direct comparison of variables, e.g. between options for gain to in-group or out-group.
- *weaknesses:* lab experiments may not represent real world situations, e.g. guessing dots, judging paintings and giving other people points are not things that 15 year old boys usually do.
- lab experiments often contain cues that act as demand characteristics so the participants respond in ways they expect the experimenter to want. This is unlikely to have happened as they were told the experiment was about vision.

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17 Use <u>one</u> of the studies listed below to discuss the strengths and weaknesses of the individual differences approach to psychology.

Freud (little Hans)
Dement and Kleitman (sleep and dreaming)
Billington et al. (empathising and systemising) **[10]**

No marks for description of study.
Max 5 if only about strengths or weaknesses of individual differences approach.

Comment	Mark
No answer or incorrect answer	0
Anecdotal evaluation, brief detail, minimal focus. Very limited range. Evaluation may be inaccurate, incomplete or muddled. May evaluate the study itself, making only indirect or serendipitous reference to the individual differences approach to psychology in general.	1–3
Either points are limited to illustrating strengths or weaknesses of the individual differences approach *or* lack of depth and/or breadth. The answer may be general rather than focused on study. Shows some understanding.	4–5
Strengths and weaknesses of the individual differences approach 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 the individual differences approach to psychology and these are focused on the study (although this aspect may be unbalanced, according to study). Evaluation is detailed with good understanding and clear expression.	8–10

Examples of possible evaluation points:

Freud

- *strengths:* individual differences approach allows for in depth investigation of cases such as little Hans so that we can explore in detail aspects such as his fantasies and dreams
- rare cases can be studied that would be 'averaged out' in larger sample studies, so specific information relating to Hans's Oedipal conflict and the way it was resolved are recorded.
- *weaknesses:* precisely because the individual differences approach looks at unusual individuals the findings often cannot be generalised in the way that those of experimental studies in other approaches, such as cognitive can, e.g. not all little boys will respond with a phobia like Hans's
- because data is often qualitative and collected by a single researcher directly from the participant, many sources of bias may arise. Here bias could have arisen either because Hans's father knew Freud's work and asked Hans leading questions or reported in biased way to Freud or because the questions Freud asked were biased.

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Dement and Kleitman

- *strengths:* individual differences approach allows for in depth investigation, for example dream content could be explored in detail from the participants dream narratives
- rare cases can be studied that would be 'averaged out' in larger sample studies, so specific information about each participant's sleep cycle length, etc., was preserved
- *weaknesses:* precisely because the individual differences approach looks at unusual individuals the findings often cannot be generalised in the way that those of experimental studies in other approaches, such as cognitive can, e.g. the participant DN did not accurately estimate 5/15 minute periods of REM
- because data is often qualitative and interpreted by the researchers, bias may arise. Here this could have arisen in the process of relating dream content to eye movements

Billington et al.

- *strengths:* individual differences approach often allows for in depth investigation, but in this case the measures were quite superficial, e.g. they were all from questionnaires
- often rare cases are studied, so the approach can explore examples that would be lost in generalisations but in this instance the 'individual difference' was the rarity of females in physical sciences
- *weaknesses:* precisely because the individual differences approach looks at a narrow range, e.g. unusual features or individuals the findings often cannot be generalised in the way that those of other approaches, such as cognitive can. In this case the narrow range of ES may not be the only factor governing gender differences in course choice
- because data are often qualitative and interpreted by the researchers, bias may arise. Here this is unlikely to have arisen as the measures used were all objective and quantitative, which is unusual in this approach.

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