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Cambridge International Advanced Subsidiary and Advanced Level

MARK SCHEME for the October/November 2014 series

9698 PSYCHOLOGY

9698/11 Paper 1 (Core Studies 1), maximum raw mark 80

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Section A

1 Extraneous variables are factors, other than the independent variable, that should be controlled but may not be. From the study by Mann et al. (lying):

(a) State <u>two</u> extraneous variables that <u>were</u> controlled. [2]

all participants were fluent in English/interviews in English
(different interviewers – videos recalled by detectives for Kent)
all lies/truths on the videos were corroborated
all lies/truths on the videos were comparable
(at least two clips per suspect) at least one truth and one lie
blind/double blind
same 2 observers
length of clip 5–146 seconds (5 seconds to 2½ minutes)

1 mark per variable × 2
NB truth/lie is the IV so = 0 marks

(b) State <u>two</u> extraneous variables that were <u>not</u> controlled. [2]

the number of truths and lies overall
the number of truths and lies per suspect
the length of each video clip (of a truth or lie)
crimes, ethnic group, age, sex (because opportunity sample)
known to police (majority [but not all] well known)
didn't ask the same questions to every suspect

1 mark per variable × 2

2 In their final comment, Loftus and Pickrell (false memories) say that people can be led to confidently remember, in great detail, events which never happened. In relation to eyewitness testimony and court cases:

(a) Describe how Loftus and Pickrell say this knowledge can be helpful. [2]

Key ideas: Eyewitnesses may provide extensive **(false) detail** and be **falsely confident** even about biologically or geographically impossible things, so testimonies should be **treated with caution**

1 mark partial (brief description/plausible benefit not from Loftus and Pickrell, e.g. falsely tell them they hate chips)
2 marks full (detailed description)
'to know that witnesses are not necessarily reliable' = 1 mark

(b) Describe what Loftus and Pickrell say this knowledge <u>cannot</u> help us to do. [2]

Key ideas: Although we do know that eyewitnesses' 'memories' may be false, we *can't* reliably tell <u>which ones</u> are false so need corroboration

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

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3 Baron-Cohen et al. used a pencil and paper (static) version of the eyes test but believe that a video (dynamic) version could be developed.

(a) Suggest an advantage of a static eyes test. [2]

easy for researchers/participants to use so likely to obtain more participants, increasing reliability of findings
has been used many times before so known to be valid and reliable
reliable because fewer things vary as (eyes) not moving

1 mark partial (identification of an advantage), 2 marks full (expansion of advantage)

(b) Suggest an advantage of a dynamic eyes test. [2]

more representative of actual facial expressions as we see people's eyes in a context rather than a snapshot/so life-like i.e. valid/has more details about the eyes
could control exactly how long each participant is exposed to each eye image, increasing reliability
might be better at keeping the participant's attention

1 mark partial (identification of an advantage), 2 marks full (expansion of advantage)

4 The study by Held and Hein (kitten carousel) was a laboratory experiment.

(a) What is a 'laboratory experiment'? [2]

A study which has an independent variable (IV) and a dependent variable (DV) = 1 mark and is conducted in a contrived/controlled environment/has controls (NB 'in a lab' is repeating the question)
the DV is measured (objectively) by the researcher
the IV can be manipulated (in isolation from other variables) by the researcher

1 mark partial (brief description),
2 marks full (detailed description, must include *either* IV and DV *or* controlled environment)

NB 'lacks ecological validity' is an evaluation not a description (and is wrong)
NB only 'controls' can earn 2 marks as a single point, expanded point (as it is the main thing that differentiates a *lab* experiment)

(b) Why is the study by Held and Hein a laboratory experiment? [2]

IV = active/passive
DV = measures of perceptual development/visuospatial co-ordination
controls e.g. visual stimulation from rotation, being kept in dark unless in apparatus etc.

1 mark partial (brief description related to study),
2 marks full (detailed description related to study)

If answer does not relate to Held and Hein, 0 marks

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5 The study by Haney, Banks and Zimbardo (prison simulation) had ethical strengths and weaknesses in terms of the participants' right to withdraw.

(a) Describe <u>one</u> way in which the ethical guideline of 'right to withdraw' was followed for the participants assigned to the role of 'prisoners'. [2]

They could, in fact, leave at any time (1 mark)
and did so e.g. let out when distressed
They were told they could be 'paroled' and forfeit the money they had earned. (2 marks)
stopped early after six days and all released

1 mark partial (e.g. they could leave), 2 marks full (expansion of description)

(b) Describe <u>one</u> way in which the ethical guideline of 'right to withdraw' was <u>not</u> followed for the participants assigned to the role of 'prisoners'. [2]

They felt as though they could not leave,
because of their dependency/pathological prisoner syndrome/protest from other prisoners
not released immediately when things deteriorated

1 mark partial (brief description), 2 marks full (expansion of description)

6 From Study 2 by Tajfel (intergroup categorisation):

(a) Name <u>and</u> describe the experimental design used in Study 2. [2]

Repeated measures/within subjects/within participants/related groups
Because **all boys** had choices of **in/in, out/out** and **in/out**

1 mark partial (either correct design *or* correct justification)
2 marks full (correct design *and* correct explanation for the study)

NB the choices max joint profit/max in-group profit/max difference were the possible DV measures so are **incorrect**.
NB under/over estimators, accurate/inaccurate and Klee/Kandinsky were parts of the procedure so are **incorrect**.
NB no marks for serendipitous mention of 'choices of in/in, out/out and in/out'

(b) Describe a <u>disadvantage</u> of using this experimental design in this study. [2]

Because the boys would have seen all the choices on the matrices, they may have worked out the aim, and responded differently/in a biased way/according to demand characteristics

1 mark partial (general disadvantage of repeated measures not linked to study, however detailed)
2 marks full (disadvantage of repeated measures linked to study, however brief)

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7 From the study by Freud (little Hans):

(a) Describe the role of little Hans's father in the study. [2]

most likely:
observation of and *questions* asked to Hans, interpretation of Hans's behaviour/comments, *reported* this information to Freud,
received letters from Freud detailing further questioning

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

(b) Suggest <u>one</u> problem with this role. [2]

Most likely:
knew of Freud's work: therefore likely to be biased in questions asked of Hans, interpretation of Hans's behaviour/comments, reporting of information to Freud
relationship to little Hans: as part of the 'problem', Hans may not have been reporting to his father in the same way as he would have done to an uninvolved/unrelated person
use of leading questions: because he knew about Freud's work, the way he question little Hans was likely to elicit responses which illustrated the Oedipus complex

1 mark partial (brief description)
2 marks full (detailed description, must be related to the study)

8 From study 1 by Langlois et al. (infant facial preference):

(a) How did the procedure attempt to reduce fatigue in the infants? [2]

5–10 minute break, after eight blocks of trials
each trial only lasted 10 seconds

1 mark partial (one point, e.g. 'breaks')
2 marks full (detail e.g. length of breaks, breaks between *blocks* of trails)

(b) How did Langlois et al. control for side bias in the presentation of the faces? [2]

in <u>consecutive blocks</u> of trials the each <u>pair of slides were **reversed** **(left/right)**</u> the second time

1 mark partial ('reversal')
2 marks full (both points)

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9 Describe the sample used in Study 1 by Nelson (children's morals). [4]

90, boys and girls, aged 3–4/preschool, and 6–8/second grade, mostly white, middle class, urban area

1 mark per feature × 4

'children' (even if accidental) = 1 mark
60, children, aged 3–4 and 30 6–8 = 4 marks
children, boys and girls, middle class, white = 3 marks
half boys, half girls = 2 marks (NB accept incorrect totals of M/F which are equal, for 2 marks)

NB: do not award for 'children' (1 mark) as well as ages (accept 1 year less in any direction or averages e.g. '3 and 7' = 2 marks, or '4 and 6–7' = 2 marks)
NB: do not award 'white' alone as not *all* white.

10 From the study by Schachter and Singer (emotion):

(a) Describe what the epinephrine informed group (Epi Inf) were told about the effects of Suproxin. [2]

"Epinephrine Informed. I should also tell you that some of our subjects have experienced side effects from the Suproxin. These side effects are transitory, that is, they will only last for about 15 or 20 minutes. What will probably happen is that your hand will start to shake, your heart will start to pound, and your face may get warm and flushed. Again these are side effects lasting about 15 or 20 minutes."

1 mark partial (minimal description)
2 marks full (some expansion)

'told **correct** effects' = 1 mark
'you will **shake**' = 1 mark
'told correct effects e.g. shaking' = 2 marks
'effects such as shaking and **pounding heart**' = 2 marks
'face warm/flushed' = 1 mark (not just 'warm' or 'rush')

NB 1 mark if 'correct effects' is not given in the answer but a real effect of adrenalin (e.g. 'palpitations') is given (that wasn't said by Schachter and Singer to their participants)
NB no marks for saying 'informed about effects' as it's implicit in the question

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(b) Describe what the epinephrine misinformed group (Epi Mis) were told about the effects of Suproxin. [2]

"Epinephrine Misinformed. I should also tell you that some of our subjects have experienced side effects from the Suproxin. These side effects are transitory, that is, they will only last for about 15 or 20 minutes. What will probably happen is that your feet will feel numb, you will have an itching sensation over parts of your body, and you may get a slight headache. Again these are side effects lasting about 15 or 20 minutes."

1 mark partial (minimal description)
2 marks full (some expansion)

'told **incorrect** effects' = 1 mark
'you will **itch**' = 1 mark
'told incorrect effects e.g. **numbness**' = 2 marks
'told effects such as itching and **headaches**' = 2 marks
NB no marks for saying 'misinformed about effects' as it's implicit in the question

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

(a) Explain why Dement and Kleitman believed that there would be a relationship between dreaming and rapid eye movements before conducting their study. [2]

"Such a relationship was reported by Aserinsky and Kleitman (1) who observed periods of rapid, conjugate eye movements during sleep and found a high incidence of dream recall in Ss awakened during these periods and a low incidence when awakened at other times. The occurrence of these characteristic eye movement and their relation to dreaming were confirmed in both normal Ss and schizophrenics (4),…"

1 mark partial (brief comment), 2 marks full (some expansion)

'previous evidence' = 1 mark
'previous evidence' from Dement (1964) = 2 marks [NB = ref 4]
'other researchers had found a relationship between eye movements and dreaming, even in schizophrenics' = 2 marks

(b) What <u>two</u> types of evidence helped Dement and Kleitman to conclude that there was a relationship between dreaming and rapid eye movements? [2]

dream content (qualitative)
EEGs (quantitative)
REMs (EOG) (quantitative)

1 mark per type of evidence: either qualitative/quantitative or two named types of data.

NB allow a mixture if correct e.g. qualitative data and EEGs = 2 marks

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12 From the study by Maguire et al. (taxi drivers):

(a) Describe the participants in the sample. [2]

11; right-handed; male; London; taxi drivers; 45±7 years old; driving 14.55±12 years (minimum 3 years)

1 mark per detail × 2

(b) To what extent could Maguire et al. generalise from this sample? [2]

the participants were **all male** taxi drivers so the findings might not apply to female taxi drivers/less practised drivers; who might not navigate so well
the participants were **all London** taxi drivers so the findings might not apply to taxi drivers elsewhere in the world
there were only 11, and this is a small sample so might not have been representative (even of male London taxi drivers)
the results are generalisable to the majority of taxi drivers as most are male
generalisable because physiological

1 mark partial (brief comment about being generalisable or not, applied to study)
2 marks full (detailed comment about being generalisable or not, applied to study)
'they were taxi drivers so the results don't apply to other people' = max 1 mark (because this was not the intention of the study)

13 In the study by Demattè et al. (smells and facial attractiveness) they give two reasons why they only presented male faces to female participants. Describe these two reasons. [4]

previous research (Doty et al./Chen and Haviland-Jones/Brand and Millot) suggests
females more sensitive to smells than males
previous research (Herz and Inzlicht) suggests
females rely more on smells in mating behaviour than males

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

2 marks per reason × 2

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14 From the study by Thigpen and Cleckley (multiple personality disorder), describe <u>two</u> ways in which the parts of the letter written by Eve White and Eve Black were different. [4]

Handwriting:	EW adult/large/clear/sloped to right; EB childish/small/untidy/upright
Tone of letter:	EW sober/serious; EB inconsequential/playful
Content:	EW worrying about forgetting shopping trip/headache EB 'baby please be quite down… don't let me lose patience with her she's …sweet and innocent and my self control…'
Errors:	EW spelled correctly EB errors (e.g. 'quite')

Most likely: two will be handwriting and tone. However, accept two aspects of one factor if clearly separate and detailed.

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

'writing looked like it was done by two different people' = 1 mark

15 In the study by Billington et al. (empathising and systemising), the participants carried out the study online.

(a) Describe what the participants were required to do online. [2]

2 questionnaires (SQ–R and EQ) and 2 performance tasks (FC–EFT and eyes test)

1 mark partial (either 'questionnaires and tasks' or only 1 named/described)
2 marks full (at least 2 named/described)

(b) The participants could do the tasks in any order. What <u>disadvantage</u> might this have? [2]

Many participants might choose to do them in the same order,
therefore hard to replicate
could lead to order effects/fatigue effects/practice effects

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

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Section B

16 Evaluate <u>one</u> of the studies listed below in terms of its weaknesses.

Held and Hein (kitten carousel)
Milgram (obedience)
Piliavin et al. (subway Samaritans) **[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 weaknesses lack depth and/or breadth *or* only 1 weakness is considered. The answer is general rather than focused on study but shows some understanding.	4–5
Two (or more) **weaknesses** are considered and are focused on the study although they may be imbalanced in terms of quality and/or depth. The answer shows good evaluation with reasonable understanding.	6–7
There is a balance of detail between weaknesses and all are focused on the study. Evaluation is detailed with good understanding and clear expression.	8–10

Examples of possible evaluation points (NB no need to have both ethical and methodological weaknesses although it is unlikely that there will be evidence of excellent 'balance of detail' unless they have both, so max 8):

Held and Hein
- *methodological weaknesses*: based on animals, may not generalise to humans as cats born blind/human cognition is different
- highly controlled environment (circular area, vertical stripes) is artificial – in the real visual world there are many different cues indicating depth and movement
- high level of restraint may have impaired other aspects of development that were not tested, so influencing development in ways that were not accounted for
- *ethical weaknesses*; in terms of animal suffering (balanced against certainty of medical benefit (possible gain)/and quality of research

Milgram
- *ethical weaknesses:* lack of consent/deception/denial of right to withdraw/distress (can be two of these if both in detail)
- *methodological weaknesses:* narrow sample (males/local to Yale/responded to advertisement), arguably lacks validity as people don't usually shock others in a laboratory

Piliavin et al.
- *ethical weaknesses:* in terms of lack of consent/denial of right to withdraw etc. (can be two of these if both in detail)
- *methodological weaknesses:* field experiment so difficult to control e.g. number of people in carriage, behaviour of fellow passengers etc.: could be two uncontrolled variables if both in detail)

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17 Use <u>one</u> of the studies listed below to discuss the advantages and disadvantages of collecting <u>qualitative</u> data.

Bandura et al. (aggression)
Rosenhan (sane in insane places)
Veale and Riley (mirror gazing) **[10]**

No marks for description of study.

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 the qualitative data in general.	1–3
Either points are limited to illustrating advantages or disadvantages of qualitative data without reference to the study *or* lack of depth and/or breadth. The answer shows some understanding.	4–5
Both advantages and disadvantages of qualitative data 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 advantages and disadvantages of qualitative data and both are focused on the study. Discussion is detailed with good understanding and clear expression.	8–10

Bandura et al.

- *advantages of qualitative data*: e.g. <u>detail</u>/depth e.g. understanding what children thought of aggressive females
- don't miss critical information: <u>e.g. video gives precise record of imitation allowing for analysis of verbal and visual information which might not all be recorded otherwise, so differences between boys and girls should not have been missed</u>
- *disadvantages of qualitative data*: gives a narrow view rather than an average one. If only data about, for example, boys' responses to female aggressive models, were qualitative it would suggest a very gender stereotyped bias against imitating opposite-sex models and although they were less effective, it still happened
- hard to quantify therefore compare – this is the case when *only* qualitative data is recorded or when qualitative data cannot be reduced to quantitative data. This wasn't the case in Bandura et al.

Rosenhan

- *advantages of qualitative data*: e.g. <u>detail</u>/depth e.g. understanding what real mental health patients experienced in terms of intrusion of privacy
- don't miss critical information: <u>e.g. information about the lack of eye contact between staff and patients, the way they were ignored, the comments made which indicated the assumption that the pseudopatients were insane etc.</u>
- *disadvantages of qualitative data*: e.g. gives a narrow view rather than an average one. If only data about individual comments had been taken (such as the lunch queue or note taking comments) it would have been less useful than the more widespread idea of time spent talking to clinicians (a quantitative measure)

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- hard to quantify therefore compare – it is hard to judge the extent to which individual pseudopatients differed in their experience of treatment as 'insane' since the reports contain such different information.

Veale and Riley

- *advantages of qualitative data*: e.g. detail/depth e.g. understanding what real BDD patients experienced in terms of feelings
- don't miss critical information: e.g. the variety of reasons for mirror avoidance
- *disadvantages of qualitative data*: e.g. gives a narrow view rather than an average one. If only data about individual comments had be taken from the BDD patients, differences such as avoiding 'bad' mirrors (ones which had been associated with distress previously versus choosing 'obscured' mirrors (e.g. cracked, dusty or dirty ones) might have been lost, as both could have fallen into one quantitative category
- hard to quantify therefore compare – this is the case when *only* qualitative data is recorded or when qualitative data cannot be reduced to quantitative data. This wasn't the case in Veale and Riley.

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