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PSYCHOLOGY **9990/42**

Paper 4 Specialist Options: Application and Research Methods **February/March 2025**

MARK SCHEME

Maximum Mark: 60

Published

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 International will not enter into discussions about these mark schemes.

Cambridge International is publishing the mark schemes for the February/March 2025 series for most Cambridge IGCSE, Cambridge International A and AS Level components, and some Cambridge O Level components.

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Generic Marking Principles

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptions for a question. Each question paper and mark scheme will also comply with these marking principles.

GENERIC MARKING PRINCIPLE 1:

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

GENERIC MARKING PRINCIPLE 2:

Marks awarded are always **whole marks** (not half marks, or other fractions).

GENERIC MARKING PRINCIPLE 3:

Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

GENERIC MARKING PRINCIPLE 4:

Rules must be applied consistently, e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

GENERIC MARKING PRINCIPLE 5:

Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).

GENERIC MARKING PRINCIPLE 6:

Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

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Social Science-Specific Marking Principles (for point-based marking)

1 Components using point-based marking:

- Point marking is often used to reward knowledge, understanding and application of skills. We give credit where the candidate's answer shows relevant knowledge, understanding and application of skills in answering the question. We do not give credit where the answer shows confusion.

From this it follows that we:

a DO credit answers which are worded differently from the mark scheme if they clearly convey the same meaning (unless the mark scheme requires a specific term)

b DO credit alternative answers/examples which are not written in the mark scheme if they are correct

c DO credit answers where candidates give more than one correct answer in one prompt/numbered/scaffolded space where extended writing is required rather than list-type answers. For example, questions that require *n* reasons (e.g. State two reasons …).

d DO NOT credit answers simply for using a 'key term' unless that is all that is required. (Check for evidence it is understood and not used wrongly.)

e DO NOT credit answers which are obviously self-contradicting or trying to cover all possibilities

f DO NOT give further credit for what is effectively repetition of a correct point already credited unless the language itself is being tested. This applies equally to 'mirror statements' (i.e. polluted/not polluted).

g DO NOT require spellings to be correct, unless this is part of the test. However spellings of syllabus terms must allow for clear and unambiguous separation from other syllabus terms with which they may be confused (e.g. Corrasion/Corrosion)

2 Presentation of mark scheme:

- Slashes (/) or the word 'or' separate alternative ways of making the same point.
- Semi colons (;) bullet points (•) or figures in brackets (1) separate different points.
- Content in the answer column in brackets is for examiner information/context to clarify the marking but is not required to earn the mark (except Accounting syllabuses where they indicate negative numbers).

3 Calculation questions:

- The mark scheme will show the steps in the most likely correct method(s), the mark for each step, the correct answer(s) and the mark for each answer
- If working/explanation is considered essential for full credit, this will be indicated in the question paper and in the mark scheme. In all other instances, the correct answer to a calculation should be given full credit, even if no supporting working is shown.
- Where the candidate uses a valid method which is not covered by the mark scheme, award equivalent marks for reaching equivalent stages.
- Where an answer makes use of a candidate's own incorrect figure from previous working, the 'own figure rule' applies: full marks will be given if a correct and complete method is used. Further guidance will be included in the mark scheme where necessary and any exceptions to this general principle will be noted.

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4 Annotation:

- For point marking, ticks can be used to indicate correct answers and crosses can be used to indicate wrong answers. There is no direct relationship between ticks and marks. Ticks have no defined meaning for levels of response marking.
- For levels of response marking, the level awarded should be annotated on the script.
- Other annotations will be used by examiners as agreed during standardisation, and the meaning will be understood by all examiners who marked that paper.

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Annotations guidance for centres

Examiners use a system of annotations as a shorthand for communicating their marking decisions to one another. Examiners are trained during the standardisation process on how and when to use annotations. The purpose of annotations is to inform the standardisation and monitoring processes and guide the supervising examiners when they are checking the work of examiners within their team. The meaning of annotations and how they are used is specific to each component and is understood by all examiners who mark the component.

We publish annotations in our mark schemes to help centres understand the annotations they may see on copies of scripts. Note that there may not be a direct correlation between the number of annotations on a script and the mark awarded. Similarly, the use of an annotation may not be an indication of the quality of the response.

The annotations listed below were available to examiners marking this component in this series.

Annotations

Annotation	Meaning
	Correct point
	Incorrect point
	Benefit of doubt (counts as correct/tick)
Highlighter 	Use to bring attention to a key part
On-page comment	Use for indicating correct question being answered
	Repetition
	Answer unclear (no credit)
	Used in the 10-mark planning Q in Section B to indicate wrong method
	Used in the 10-mark planning Q in Section B to indicate ethics included
	Not answering question
	To show a blank page has been checked
	Supportive point (Section A Question part (c) only. Count as correct (equivalent to a tick)
	Used in the 10-mark planning Q in Section B to indicate bullet point included
	Used in the 10-mark planning Q in Section B to indicate no ethics included
	No benefit of doubt (counts as incorrect/X)

Generic levels of response marking grids

Table A: AO2 Application

The table should be used to mark the 10 mark 'Plan a study' questions (9, 10, 11 and 12).

Level	Description	Marks
5	The response: • uses an appropriate method as required by the question. • describes a good range of appropriate method-specific features with accurate detail. • describes a good range of appropriate general methodological features with accurate detail. • shows very good understanding and the plan is coherent and is sufficient for replication. • clearly applies knowledge of psychological methodology and terminology involved in planning a study. • Uses and shows good understanding of ethical guidelines.	9–10
4	The response: • uses an appropriate method as required by the question. • describes a range of appropriate method-specific features in detail. • describes a range of appropriate general methodological features with some in detail. • shows good understanding and the plan is coherent. • applies knowledge of psychological methodology and terminology involved in planning a study. • uses ethical guidelines appropriately.	7–8
3	The response: • uses an appropriate method as required by the question. • describes a range of appropriate method-specific features although these may lack detail. • describes some general methodological features although these may lack detail. • shows limited understanding and the plan has some coherence. • applies some knowledge of psychological methodology and terminology involved in planning a study. • refers to ethical guidelines.	5–6
2	The response: • uses an appropriate method as required by the question. • identifies (lists) some appropriate method-specific features. • identifies (lists) a limited range of appropriate general methodological features. • shows little understanding and the plan would be difficult or impossible to replicate. • makes some attempt to apply knowledge of psychological methodology and terminology involved in planning a study. • ethical guidelines listed or absent.	3–4

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Level	Description	Marks
1	The response: • may not use the method required by the question. • may not answer the question set. • identifies a few general and/or method-specific features and detail is limited. • shows very little understanding and the plan would be impossible to replicate. • makes a limited attempt to apply knowledge of psychological methodology and terminology involved in planning a study.	1–2
0	• No response worthy of credit. • The candidate describes the study listed on the syllabus. • The plan is unethical.	0

Question	Answer	Marks
1	**From the key study by Oruč et al. (1997) on mood (affective) disorders:**	
1(a)(i)	**Outline the sample of participants used in this study.** **AO1** Syllabus: 1.2.2 Key study on association analysis of genetics of depressive disorder: Oruč et al. (1997). Marks: Award 1 mark for each correct feature. Note: cannot have 2 marks from one bullet point. Definitive answer: • 42 test group and 40 healthy controls • test group 25 female and 17 males • control group 25 females and 15 males • age range from 31–70 • unrelated patients • diagnosed with BP disorder type I (BPI) or no disorder • 16 BPI patients had a positive family history as defined by at least one first-degree • relative suffering from major affective disorders • were all in- or out-patients • all associated with the REBRO and Vrapče psychiatric hospitals in Zagreb, Croatia • controls were age- and sex-matched • controls from the hospital staff and their friends.	**4**
1(b)	**Suggest <u>one</u> reason why a control group of participants was used in this study.** **AO2** Marks: Award 2 marks for an appropriate suggestion stated and applied to study with detail / elaboration / example. Award 1 mark for reason identified but not applied. Answers may include (<u>other appropriate responses to be credited</u>). • to set a baseline to which the experimental group can be compared (1 mark) • including people who have no bipolar disorder (+1 mark) • including people who have no first-degree relative with a mental illness (+1 mark)	**2**

Question	Answer	Marks
1(c)	**Explain <u>two</u> strengths of the sample used in this study, other than the use of a control group.** **AO3** Marks: Up to 2 marks for each strength ×2 Award 2 marks for an appropriate strength stated and applied as required by the question with detail / elaboration / example. Award 1 mark for an appropriate strength stated but not applied Answers may include (<u>other appropriate responses to be credited</u>): Strengths: • recruiting as in- and out-patients means that the participants are known to the researchers (1 mark) and that the patients are more likely to meet the inclusion criteria for the study (2 marks) • recruiting as in- and out-patients means that the participants are more likely to be familiar with the location for the study (1 mark) perhaps helping them to feel more relaxed and more willing to participate (2 marks) • as the test group participants had BP type 1 diagnosis they were more willing to participate to find out more about their disorder (1 mark) and more likely to want to contribute to research on bipolar disorder (2 marks). Note: accept 'males and females'; 'wide age range' but not large sample size.	**4**

Question	Answer	Marks
2(a)	**State <u>two</u> diagnostic criteria of gambling disorder.** **AO1** Syllabus 1.3.1 diagnostic criteria (ICD-11) of impulse control disorders: – kleptomania – pyromania – gambling disorder. Marks: Award 1 mark for each correct criterion (in bold) 2 max. Definitive answer **(ICD-11)**: Essential (Required) Features: • a **persistent pattern** of gambling behaviour, which may be predominantly online or offline, manifested by all of the following: – impaired control over gambling behaviour – increasing priority given to gambling behaviour; precedence over other life interests and daily activities; – continuation or escalation despite negative consequences • the pattern of gambling behaviour may be **continuous or episodic and recurrent** but is manifested over an extended period of time (e.g. 12 months). • the pattern of gambling behaviour results in **significant distress or impairment** in personal, family, social, educational, occupational, or other important areas of functioning. Note: 0 marks for general features of ICD's (i.e. that could apply to any ICD).	**2**
2(b)	**Suggest <u>one</u> way in which gambling disorder could be measured, other than by self-report. Your answer <u>must</u> be ethical.** **AO2** Marks: Award 2 marks for an appropriate suggestion and applied to study with detail / elaboration / example. Award 1 mark for an appropriate suggestion identified but not applied. Answers may include (<u>other appropriate responses to be credited</u>). • observation: covert or overt; structured; non-participant, natural – or any combination of these (1 mark) over a period of time to see how many diagnostic features of the gambling disorder are evident (2 marks). • case study of one person (1 mark) to see how many diagnostic features of the gambling disorder are evident (2 marks). • experiment where a gambler is exposed to a situation (1 mark) and their behaviour is observed for gambling tendencies (2 marks) Note: interviews and questionnaires are self-reports so 0 marks.	**2**

Question	Answer	Marks
2(c)	**Explain <u>two</u> weaknesses of using a self-report to measure gambling disorder.** **AO3** **Marks**: Up to 2 marks for each weakness ×2 Award 2 marks for an appropriate weakness stated and applied as required by the question with detail / elaboration / example. Award 1 mark for an appropriate weakness stated but not applied. Answers may include (<u>other appropriate responses to be credited</u>): Weaknesses: • the gambler may not provide honest answers to questions (1 mark) • perhaps to hide the extent of their gambling addiction (+1 marks) • such as their behaviour over a recent time period, saying that they have not gambled when they have (+1 mark) • researcher bias in interpretation of answers if open questions used (1 mark) so incorrect measure and implication for treatment of gambling disorder (2 marks) • if closed questions used they might not account for individual differences/unique cases (1 mark) which would have implications for the measure/treatment of the gambler (2 marks) • give 'socially desirable' answers (1 mark) to hide the extent of their addiction (2 marks)	**4**

Question	Answer	Marks
3	**From the key study by Hall et al. (2010) on choice blindness for food items:**	
3(a)(i)	**Identify <u>two</u> ways in which deception was used in this study.** **AO1** Syllabus**:** 2.3.3 Key study for choice blindness when tasting and smelling food items: Hall et al. (2010). Marks: Award 1 mark for each correct identification. Definitive answers: (quoting the study): (i) we recruited the participants by asking them whether they were willing to take part in **a 'quality control' test of the jam and tea assortment** at the store (ii) we presented ourselves as being **independent consultants** contracted to survey the quality of the jam and tea assortment in the shop (iii) unknown to the participants, on certain trials, we **used a card magic trick** to covertly exchange one face for the other (iv) we created two **sets of 'magical' jars**, lidded at both ends, and with a divider inside. These jars thus looked like normal containers but were designed to hold one variety of jam or tea at each end and could easily be flipped over to execute a switch.	**2**

Question	Answer	Marks
3(a)(ii)	**Explain why each of these deceptions was necessary.** **AO1** Marks**:** Award 1 mark for each correct reason. Reasons below relate to ways in **(a)(i)**. (i) necessary because participants would realise that they were participating in a study (ii) necessary because participants would realise that they were experimenters conducting a study (iii) participants have to be deceived about the using the magic card trick otherwise the study would simply not work (iv) participants have to deceived about the 'magical jars' otherwise the study would simply not work. Note: for 2 marks any two reasons, not matched; also one detailed reason.	**2**
3(b)	**Suggest <u>one</u> effect on the results if deception had <u>not</u> been used in this study.** **AO2** Marks: Award 2 marks for an appropriate suggestion stated and applied to study with detail / elaboration / example. Award 1 mark for an appropriate suggestion identified but not applied. Answers may include (<u>other appropriate responses to be credited</u>): • the study would be confounded (1 mark) participants would realise they were in a study about choice blindness and perhaps respond to demand characteristics (2 marks) • cause and effect could not be established (1 mark) participants would realise that they were being tricked e.g. by the jars or card trick and not behave as they normally would (2 marks)	**2**

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Question	Answer	Marks
3(c)	**Explain <u>one</u> strength and <u>one</u> weakness of the use of field experiments to investigate choice blindness.** **AO3** Marks**:** Up to 2 marks for each strength and up to 2 marks for each weakness: Award 2 marks for an appropriate strength/weakness stated and applied as required by the question with detail / elaboration / example. Award 1 mark for an appropriate strength/weakness stated but not applied Answers may include (<u>other appropriate responses to be credited</u>): Strengths: • a field experiment has an IV, DV and controls (1 mark) and is just as important in studies of choice blindness as in any other; e.g. of IV and DV in this study (2 marks) • often participants do not know they are taking part in a study and so behave more naturally (1 mark) in the Hall et al. study consent given at the end (2 marks). • a field experiment is the best location (1 mark) because most consumer behaviour (e.g. shopping) takes place in the real world and so studies should be conducted in the real world (rather than in a laboratory) (2 marks). • Weaknesses: • a field experiment may have variables that are more difficult to control than a laboratory experiment (1 mark) with any retail atmospheric variable as an example (2 marks) • isolating one variable to study (i.e. the IV) when many other variables are controlled may not be appropriate (1 mark) when in the real-world individual aspects of choice blindness never occur in isolation (2 marks)	**4**

Question	Answer	Marks
4(a)	**Outline <u>two</u> ways in which a gift can be wrapped.** **AO1** Syllabus: 2.4.1 gift-wrapping including beliefs of giver and recipient: why gifts are wrapped, types of wrapping. Marks: Award 1 marks for 'way' or type plus 1 mark for elaboration/example Most likely answer: • wrapped in a **traditional manner** where the gift meets expectations of looking like a gift with ribbons, bows, etc. (1 mark) • wrapped in **a non-traditional** manner where it may be difficult to determine that the gift is actually a gift, for example, through the use of plain brown paper (1 mark) Note: award 1 mark if both types are identified only.	**2**

Question	Answer	Marks
4(b)	**Suggest how an unstructured observation can be used to investigate gift-wrapping behaviour.** **AO2** Marks: Award 2 marks for an appropriate suggestion and applied to study with detail / elaboration / example. Award 1 mark for an appropriate suggestion but not applied. Answers may include (other appropriate responses to be credited). • an unstructured observation would have no pre-determined response categories (1 mark) and the observer lists gift-wrapping behaviours as they are performed (2 marks) • an unstructured observation could be done in different locations (1 mark) such as in a gift shop compared to at home wrapping a gift for a friend (2 marks)	**2**
4(c)	**Explain two strengths of using different features of observation to measure gift-wrapping behaviour.** **AO3** Marks: Up to 2 marks for each strength X2 Award 2 marks for an appropriate strength stated and applied as required by the question with detail / elaboration / example. Award 1 mark for an appropriate strength stated but not applied. Answers may include (other appropriate responses to be credited): Strengths: • a covert observation means the person is unaware they are being observed and so behaves naturally (1 mark) wrapping a gift as they usually would (2 marks) • observations can have more than one observer, so reliability of an observation can be checked (1 mark) perhaps all agreeing that a gift is non-traditional (2 marks) • a structured observation means that observers know exactly what they are looking for (1 mark) to see what features are included in a traditional wrapping, such as a bow (2 marks). • A naturalistic observation means that the participant is in a natural environment and unaware (1 mark) that their gift-wrapping behaviour is being observed (2 marks)	**4**

Question	Answer	Marks
5	**From the key study by Brudvik et al. (2016) on pain assessments by doctors, parents and children:**	
5(a)	**Outline <u>two</u> conclusions from the study that add to the understanding of children's pain.** **AO1** Syllabus: 3.3.2: Key Study on comparing pain assessments by doctors, parents and children: Brudvik et al. (2016). Marks: Award 2 marks for a detailed outline. Award 1 mark for a partial outline. Definitive answers (from the study): • emergency department **physicians significantly underestimate pain** (1 mark) from all medical conditions in paediatric patients ≥3 years old, especially from wounds, infections and soft tissue injuries, but less from fractures (2 marks). • physicians' pain **assessments improve with increasing levels of pain** (1 mark), but still, hardly half of the children with severe pain receive pain relief (2 marks). • **physicians should be cognizant** that they are likely to **underestimate children's pain** (1 mark) children's self-reports through age-appropriate pain scales and parents' assessments are important in order to improve pain management in the emergency department (2 marks). Note: Answers must be those from the study, not candidate suggestions. Note: findings (results) can only support a conclusion	**4**
5(b)	**Suggest <u>one</u> way pain in children could be measured without using self-report pain rating scales.** **AO2** Marks: Award 2 marks for an appropriate suggestion stated and applied to study with detail / elaboration / example. Award 1 mark for an appropriate suggestion but not applied. Answers may include (<u>other appropriate responses to be credited</u>). • observation of non-verbal cues (1 mark) such as grimaces, rubbing, limping (+1 mark). • observation of audible expressions (1 mark) groans, 'ahhh's', crying (+1 mark) • observation of negative affect (1 mark) irritable, bad mood, misbehaving, not sitting still, etc (+1 mark) • self-report by the child (1 mark) expressing how much it hurts (+1 mark) (which is not a rating scale) • clinical interview by physician giving subjective estimate of child's pain (1 mark) e.g. child is asked to describe their pain (2 marks). Note: UAB although a rating scale, is not a self-report and so is creditworthy. Note: MPQ and PPQ use rating scales. All visual analogue scales use rating scales (as do 'smiley faces')	**2**

Question	Answer	Marks
5(c)	**Explain <u>two</u> weaknesses of conducting research on pain using children as participants.** **AO3** Marks: Up to 2 marks for each weakness X2 Award 2 marks for an appropriate weakness stated and applied as required by the question with detail / elaboration / example. Award 1 mark for an appropriate weakness stated but not applied. Answers may include (<u>other appropriate responses to be credited</u>): Weaknesses • children may not understand complex instructions (1 mark) • children may not be able to explain what they are thinking or how they feel (1 mark) • …and not describe their pain accurately (+1 mark) • children may not exercise the right to withdraw; they may not understand a debriefing (1 mark) • it may be difficult to judge the reaction of children; lack language skills (1 mark) • …if they are asked questions about pain (+1 mark) Note: question is 'research on children (in general) so wide range of points can apply.	**4**

Question	Answer	Marks
6	**Malingering and Munchausen syndrome are both explanations of the misuse of health services.**	
6(a)	**Explain what is meant by the term 'malingering'.** **AO1** Syllabus: 3.1.3 Misusing health services. Munchausen syndrome versus malingering. Diagnostic features of Munchausen (essential and supporting features), including a study, e.g. Aleem and Ajarim (1995). Marks: Award 2 marks for a detailed explanation. Award 1 mark for a partial explanation. Answers may include (<u>other appropriate responses to be credited</u>): • it is when a person deliberately makes themselves unwell, or • it is when a person pretends to be unwell (fakes an illness) • it is for personal gain… • for an obvious incentive (being ill to miss swimming lessons) • to gain attention (attention-seeking)	**2**

Question	Answer	Marks
6(b)	**Suggest <u>one</u> way in which malingering could be identified by a doctor.** **AO2** Marks: Award 2 marks for an appropriate suggestion and applied to study with detail / elaboration / example. Award 1 mark for an appropriate suggestion but not applied. Answers may include (<u>other appropriate responses to be credited</u>). • clinical interview details of case history could be revealed (1 mark) such as previous hospital visits, etc (2 marks) • observation over a short period OR features of observation included (1 mark) if admitted to hospital ward doctors, nurses, etc can observe progress/lack of it or any unusual behaviour (2 marks) • use biological tests such as blood test or any other (1 mark) to investigate whether claim of 'illness' is confirmed or not (2 marks) • by matching a person's behaviour with the known behaviours of a person with Munchausen syndrome (1 mark) related to Munchausen (2 marks) • by identifying what the person aims to gain from their malingering behaviours (1 mark) related to Munchausen (2 marks)	**2**
6(c)	**Explain <u>two</u> strengths of using case studies to research Munchausen syndrome.** **AO3** Marks: Up to 2 marks for each strength X2 Award 2 marks for an appropriate strength stated and applied as required by the question with detail / elaboration / example. Award 1 mark for an appropriate strength stated but not applied. Answers may include (<u>other appropriate responses to be credited</u>): Strengths: • using a case study can offer insight into rare disorders (1 mark) e.g. the case study by Aleem & Ajarim (1995) on Munchausen syndrome (2 marks) • using a case study provides practitioners with more information about the disorder and reasons for it occurring (1 mark) e.g. Jacab et al. (2006) discussed key symptoms perhaps present in all malingerers/Munchausen syndrome (2 marks) • using a case study of a person with the disorder is perhaps the only way it can be studied (1 mark) because an experiment would be impossible (contrast) (2 marks)	**4**

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Question	Answer	Marks
7	**From the key study by Swat (1997) on monitoring accidents and risk events:**	
7(a)	**Outline <u>two</u> causes of accidents identified by Swat.** **AO1** Syllabus: 4.4.3 Key study on the monitoring of accidents and risk events: Swat (1997). Marks: Award 2 marks for a detailed outline. Award 1 mark for identification. Definitive answers (quote from study): We have distinguished 4 essential causes of accidents: • **insufficient supervision** (1 mark) inadequate control of whether the worker has followed the correct code of practice (2 marks) • **poor workplace organisation** (1 mark) faults in the determination of workplace organisation system, e.g. inadequate personal protection, too high a pace of work, incorrect work procedures, failure to nominate a person responsible for group tasks) (2 marks) • **technical factors** (1 mark) defects in technical object, failure to meet the predetermined technical requirements (2 marks), • **worker inadvertence (or worker error)** (1 mark) individual error of the worker difficult to predict by the supervisor, resulting e.g. from an inadvertent action (2 marks) • **Swat also adds** (quote from study) Insufficient supervision was found in as much as 89% of cases studied. Poor workplace organization was involved in 40% of the accidents. Worker inadvertence constituted an essential cause of 14% of accidents. Technical factors were responsible for only 11% of the cases studied. It should be added that the mechanism of 9 (13%) accidents could not be clearly explained. Note: correct percentage of causes credited as +1 mark) Note: poor housekeeping is not listed as a cause by Swat. Credit only if linked to one of above.	**4**
7(b)	**Suggest <u>one</u> reason why all accidents are <u>not</u> reported.** **AO2** Marks: Award 2 marks for an appropriate suggestion stated and applied to study with detail / elaboration / example. Award 1 mark for an appropriate suggestion identified but not applied. Answers may include (<u>other appropriate responses to be credited</u>). • reported accidents may have to meet certain criteria so 'minor' accidents are not reported (1 mark) for example, a person may have to be taken to hospital or take time off work for the accident to be counted (2 marks) • reported accidents may result in a shut-down or halt in production whilst the cause is investigated (1 mark) which the company would not want, so the accident is not officially reported (2 marks)	**2**

Question	Answer	Marks
7(c)	**Explain <u>one</u> reason why generalisations can be made from this study and <u>one</u> reason why generalisations <u>cannot</u> be made from this study.** **AO3** Marks: Up to 2 marks for each 'can generalise' and up to 2 marks for each 'cannot generalise'. Award 2 marks for an appropriate can/cannot generalise stated and applied as required by the question with detail / elaboration / example. Award 1 mark for an appropriate can/cannot generalise stated but not applied. Answers may include (<u>other appropriate responses to be credited</u>): Can be made: • the study included a range of four very different trades (1 mark) foundry, machinery plant, meat processing and furniture (2 marks) • if accidents in different trades can be categorised relatively easily then perhaps they apply to many other trades (1 mark) e.g. 'poor housekeeping' was a very common cause of accidents (2 marks) Cannot be made: • just because the finding from one study identifies common elements it does not mean that those elements will be found elsewhere (1 mark) 'housekeeping' for example might be key in the four trades in the study, but no other trade or even in those same trades (2 marks). • the study was conducted in one country and there might be something specific to work organisations (1 mark) that are not present in the work organisations of other countries, such as Poland (2 marks).	**4**

Question	Answer	Marks
8(a)	**Outline what is meant by a 'profit-sharing' type of reward system.** Syllabus: 4.1.3 motivators at work. extrinsic motivators at work: types of reward systems including pay, bonuses, profit-sharing, performance-related pay. Marks: Award 1 mark for outline and +1 mark for example/detail Answers may include (<u>other appropriate responses to be credited</u>): • it is where a percentage of the company profit is shared among all workers (1 mark) • this is based on profits over a period of time (usually annually) (+1 mark) • it can be paid at a time of year when workers are likely to need more money (such as holiday time) (+1 mark) • it is an extrinsic motivator (+1 mark)	**2**

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Question	Answer	Marks
8(b)	**Suggest how the effectiveness of a profit-sharing reward system could be measured using a questionnaire with closed questions.** Marks: Award 2 marks for an appropriate suggestion stated and applied to study with detail / elaboration/example. Award 1 mark for an appropriate suggestion identified but not applied. Answers may include (other appropriate responses to be credited): • questionnaire (+format/technique) (1 mark) asking (for example) about levels of intrinsic motivation in relation to profit-sharing reward (2 marks) • question could be answered using Likert-type scale or more general scale (1 mark) related to profit-sharing e.g. 'Do you prefer profit to be shared monthly or annually?' (2 marks) • question could be answered using yes/no/no effect (1 mark) related to profit-sharing (2 marks)	**2**
8(c)	**Explain one strength and one weakness of a 'profit-sharing' type of reward system.** Marks: Up to 2 marks for each strength and up to 2 marks for each weakness: Award 2 marks for an appropriate strength/weakness stated and applied as required by the question with detail / elaboration / example. Award 1 mark for an appropriate strength/weakness stated but not applied Answers may include (other appropriate responses to be credited): Strengths: • it gives workers a stronger sense of belonging to the organisation (1 mark) increasing organisational commitment and reducing absences from work (2 marks) • it can lead to increased motivation (1 mark) the harder workers work and produce goods, the more profit for the company and so more profit for those who do the hard work (2 marks) • Weaknesses: • profit-sharing does not apply in all organisations or in organisations where there is no profit (1 mark) there is no profit in a public health service or police or fire service for example (2 marks) • profit-sharing is an extrinsic motivator and it is argued that it can decrease intrinsic motivation when workers work only for money (1 mark) resulting in more stress, less autonomy and less job satisfaction (2 marks)	**4**

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<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td colspan="3">Section B</td></tr>
<tr><td>9(a)</td><td>Plan a study using an online questionnaire to investigate whether rational emotive behaviour therapy (REBT) is effective as a treatment for depression.

Your plan must include details about:
• question scoring/interpretation
• ethical guidelines.

Use Table A: AO2 Application to mark candidate responses to this question.
Credit both general features and specific features of the plan.
<table><tr><td>The specific features of the plan <u>should</u> include:
• technique (paper/pencil, online, postal)
• format (open and/or closed)
• examples of questions
• question scoring/interpretation
• number of questions</td><td>The general features of the plan <u>should</u> include (if appropriate):
• sample and sampling technique
• ethical guidelines
• a procedure
• the location
• type of data, analysis of data, use of descriptive statistics
• an aim or hypothesis (directional or non-directional)/null hypothesis
• • steps for making the study valid and reliable</td></tr></table></td><td>10</td></tr>
<tr><td>9(b)</td><td>For <u>one</u> piece of psychological knowledge on which your plan is based:</td><td></td></tr>
<tr><td>9(b)(i)</td><td>Describe this psychological knowledge.

Syllabus: 1.2.3 Treatment and management of mood (affective) disorders. psychological therapies: – Ellis’s rational emotive behaviour therapy (REBT).

Answers are likely to include (<u>other appropriate responses to be credited</u>): Ellis focused on how illogical beliefs are maintained through: A: an activating event, B: the belief held about A, C: the consequences – thoughts, feelings or behaviours – resulting from A. RET therefore involves: D: disputing the irrational beliefs, E: the effects of successful disruption of the irrational beliefs.

<table><tr><td>Marks</td><td>Description</td></tr><tr><td>3–4</td><td>The knowledge is appropriate. Relevant points are correctly described in good detail.</td></tr><tr><td>1–2</td><td>Basic points are identified with some elaboration and understanding. The answer lacks detail (a sentence or two).</td></tr><tr><td>0</td><td>No creditable response</td></tr></table></td><td>4</td></tr>
</table>

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>9(b)(ii)</td><td>Explain how you used <u>two</u> features of this psychological knowledge to plan your study.

Candidates should explain how the psychological knowledge described in (b)(i) has informed their plan in part (a).

For each feature:
<table><tr><td>Marks</td><td>Description</td></tr><tr><td>2</td><td>Suitable answer that relates a feature and explains how the feature was used, expanded or modified to make it appropriate to the plan. The knowledge has clearly been applied to the plan.</td></tr><tr><td>1</td><td>Basic answer that identifies a feature</td></tr><tr><td>0</td><td>No creditable response</td></tr><tr><td>Note:</td><td>1 mark for explanation of follow on from (b)i; 1 mark for explanation appearing in (a) ×2</td></tr></table>
Example: the online questionnaire could ask a question such as ‘In relation to irrational beliefs do you dispute them: always/sometimes/never? showing knowledge of how the theory links to the plan.</td><td>4</td></tr>
<tr><td>9(c)(i)</td><td>Explain <u>one</u> reason for your choice of question scoring/interpretation.

Candidates must use the question scoring/interpretation stated in (a).

Award 2 marks: reason is given and applied to the plan
Award 1 mark: reason is given without being applied to the plan

Example
• a (n-point) scale was used because each participant’s could express the amount of agreement/disagreement (1 mark) related to study (2 marks).
• a yes/no was used because each participant’s response could be compared (1 mark) related to study (2 marks).
• quantitative data was gathered because it allowed statistical analysis/production of descriptive statistics (1 mark) related to study (2 marks).
• as the data is qualitative, a number of judges/raters were used to reach agreement on the words produced (1 mark) related to study (2 marks)
• the answers gave qualitative data so was coded by raters/judges to ‘convert’ into quantitative data for statistical analysis (1 mark) related to study (2 marks)</td><td>2</td></tr>
</table>

Question	Answer	Marks
9(c)(ii)	**Explain <u>one</u> weakness of your choice of question scoring/interpretation.** Candidates must use the choice of response interpretation stated in (ci). Award 2 marks: weakness is given and applied to the plan Award 1 mark: weakness is given without being applied to the plan Example • a different [3 or 7] point scale should have been used rather than the [e.g. 5] point used because the range of answers was too narrow/too wide (1 mark) related to study (2 marks) • a forced/fixed choice point scale should have been used (e.g. 4 point) because many participants opted for the middle/neutral answer on my [5 point] scale (1 mark) related to study (2 marks) • the raters/judges interpreting the answers may not agree leading to false findings (1 mark) related to study (2 marks) • only one person gathered the answers and they might have some bias toward the outcome of the study (1 mark) related to study (2 marks) Note: 0 marks for 'ambiguous questions' because that is not interpretation/scoring.	**2**
9(c)(iii)	**Explain <u>one</u> reason for your choice of an ethical guideline that you followed.** Candidates must use the ethical guideline stated in (a) Award 2 marks: reason is given and applied to the plan Award 1 mark: reason is given without being applied to the plan Example: <u>Any appropriate guideline receives credit</u> • participants were given the **right to withdraw** from the study because… (1 mark) related to plan (2 marks) • participants **gave informed consent** because… (1 mark) related to plan (2 marks) • **confidentiality** was maintained because… (1 mark) related to plan (2 marks) • there was no **deception,** because…(1 mark) related to plan (2 marks)	**2**

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td colspan="3">Section B</td></tr>
<tr><td>10</td><td>Point of purchase decisions include multiple unit pricing and suggestive selling.</td><td></td></tr>
<tr><td>10(a)</td><td>Plan an experiment to investigate the effectiveness of suggestive selling on purchases from a supermarket.

Your plan must include details about:
• controls
• directional or non-directional hypothesis.

Use Table A: AO2 Application to mark candidate responses to this question.
Credit both general features and specific features of the plan.

<table>
<tr><td>The specific features of the plan <u>should</u> include:
• type of experiment
• independent variable
• dependent variable
• controls
• choice of experimental design.
• If appropriate:
• counterbalancing, random allocation (RCT)
• single blind/double blind
• • other appropriate features</td><td>The general features of the plan <u>should</u> include (if appropriate):
• sample and sampling technique
• ethical guidelines
• a procedure
• the location
• type(s) of data, analysis of data, use of descriptive statistics
• an aim or hypothesis (directional or non-directional)/null hypothesis
• steps for making the study valid and reliable</td></tr>
</table></td><td>10</td></tr>
</table>

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>10(b)</td><td>For <u>one</u> piece of psychological knowledge on which your plan is based:</td><td></td></tr>
<tr><td>10(b)(i)</td><td>Describe this psychological knowledge.

Syllabus: 2.3.2 Choice heuristics. Point of purchase decisions including multiple unit pricing and suggestive selling, including a study, e.g. Wansink et al. (1998).

Answers are likely to include (<u>other appropriate responses to be credited</u>): Suggestive selling is where the salesperson asks the customer if they would like to include an additional purchase or recommends a product which might suit them/their needs/usage. It is also known as add-on selling, up-selling and cross-selling. Wansink (1998) for example looked at suggestive selling using slogans such as ‘buy Snickers bars for your freezer’ and ‘buy 18 Snickers bars for your freezer’. Sales (of Snickers bars) increased with both of these anchors.

<table>
<tr><td>Marks</td><td>Description</td></tr>
<tr><td>3–4</td><td>The knowledge is appropriate. Relevant points are correctly described in good detail.</td></tr>
<tr><td>1–2</td><td>Basic points are identified with some elaboration and understanding. The answer lacks detail (a sentence or two).</td></tr>
<tr><td></td><td>No creditable response</td></tr>
</table>
</td><td>4</td></tr>
<tr><td>10(b)(ii)</td><td>Explain how you used <u>two</u> features of this psychological knowledge to plan your experiment.

Candidates should explain how the psychological knowledge described in (b)(i) has informed their plan in part (a).

For each feature:
<table>
<tr><td>Marks</td><td>Description</td></tr>
<tr><td>2</td><td>Suitable answer that relates a feature and explains how the feature was used, expanded or modified to make it appropriate to the plan. The knowledge has clearly been applied to the plan.</td></tr>
<tr><td>1</td><td>Basic answer that identifies a feature</td></tr>
<tr><td>0</td><td>No creditable response</td></tr>
<tr><td>Note:</td><td>1 mark for explanation of follow on from (b)i; 1 mark for explanation appearing in (a) ×2</td></tr>
</table>

Example: A plan could have an experimental group exposed to suggestive selling with information such as ‘buy 18 Snickers bars for your freezer’ (link to the theory of Wansink) and a control group where no suggestive selling technique is used.</td><td>4</td></tr>
</table>

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Question	Answer	Marks
10(c)(i)	**Explain <u>one</u> reason for your choice of controls.** Candidates must use the controls stated in (a). Award 2 marks: reason is given and applied to the plan Award 1 mark: reason is given without being applied to the plan Example • so the study is valid; it is more likely that the DV has been caused by the IV (1 mark) applied to specific plan (2 marks) • situational variables are controlled such as noise, temperature and lighting (1 mark) applied to specific plan (2 marks).	**2**
10(c)(ii)	**Explain <u>one</u> weakness of your choice of controls.** Candidates must use the controls stated in (c)(i). Award 2 marks: weakness is given and applied to the plan Award 1 mark: weakness is given without being applied to the plan Example • if too many controls are applied the experiment loses ecological validity (1 mark) related to study (2 marks) • if too many controls are applied demand characteristics are perhaps more likely (1 mark) related to study (2 marks).	**2**
10(c)(iii)	**Explain <u>one</u> reason for your choice of directional or non-directional hypothesis.** Candidates must use the directional/non-directional hypothesis stated in (a). Award 2 marks if an appropriate directional or non-directional hypothesis is given, applied to the plan and worded correctly. Award 1 mark if an appropriate directional or non-directional hypothesis is given, applied to the plan, but the wording is incomplete or partially incorrect. A reasonable attempt. Award 0 marks if the statement is not a directional or non-directional hypothesis or there is no attempt to apply it to the plan to the plan. Example: • a directional hypothesis was chosen because there was sufficient psychological knowledge to suggest the direction of the difference (1 mark) for example the study by X found that [insert example as appropriate] (2 marks) • a non-directional hypothesis was chosen because there was no evidence to suggest that group X would be more/better/score (1 mark) [related to specific plan] (2 marks) Note: 2 marks can also be awarded for a basic reason and a fully operational hypothesis; 1 mark for a basic reason and a partially correct statement. Note: 0 marks for a null hypothesis.	**2**

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<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td colspan="3">Section B</td></tr>
<tr><td>11(a)</td><td>
Plan a study using an experiment to investigate whether biochemical treatments are more effective than stimulation therapy/TENS for chronic pain.

AO2

Your plan must include details about:
• experimental design
• ethical guidelines.

Use Table A: AO2 Application to mark candidate responses to this question.
Credit both general features and specific features of the plan.

<table>
<tr>
<td>The specific features of the plan <u>should</u> include:
• type of experiment
• independent variable
• dependent variable
• controls
• choice of experimental design
• If appropriate:
• counterbalancing, random allocation (RCT)
• single blind/double blind
• other appropriate features</td>
<td>The general features of the plan <u>should</u> include (if appropriate):
• sample and sampling technique
• ethical guidelines
• a procedure
• the location
• type of data, analysis of data, use of descriptive statistics
• an aim or hypothesis (directional or non-directional)/null hypothesis
• steps for making the study valid and reliable</td>
</tr>
</table>

Credit other elements of the plan as appropriate using the marking grid.
</td><td>10</td></tr>
</table>

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>11(b)</td><td>For <u>one</u> piece of psychological knowledge on which your plan is based:</td><td></td></tr>
<tr><td>11(b)(i)</td><td>Describe this psychological knowledge.

AO2

Syllabus: 3.3.3 Managing and controlling pain: biological treatment: biochemical. Alternative treatments: acupuncture; stimulation therapy/TENS.

Description:
Note: question is chronic pain NOT acute pain.
biochemical techniques:
• peripherally acting analgesics act on the peripheral nervous system (e.g. aspirin, ibuprofen, paracetamol).
• centrally acting analgesics work directly on the central nervous system (e.g. morphine).
• local anesthetics can work when ‘rubbed in’ but are more effective when injected into a site (e.g. tooth extraction, epidural).
Simulation/TENS:
• stimulation therapy uses counter-irritation that directs attention away from the stronger pain. Transcutaneous electrical nerve stimulation (TENS) is self-administered. Electrodes are placed on the skin near where the patient feels pain and very mild electric shocks are given, causing distraction.

<table>
<tr><td>Marks</td><td>Description</td></tr>
<tr><td>3–4</td><td>The knowledge is appropriate. Relevant points are correctly described in good detail.</td></tr>
<tr><td>1–2</td><td>Basic points are identified with some elaboration and understanding. The answer lacks detail (a sentence or two).</td></tr>
<tr><td>0</td><td>No creditable response</td></tr>
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<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>11(b)(ii)</td><td>Explain how you used <u>two</u> features of this psychological knowledge to plan your experiment.

AO2

Candidates should explain how the psychological knowledge described in (b)(i) has informed their plan in part (a).

For each feature:
<table><tr><td>Marks</td><td>Description</td></tr><tr><td>2</td><td>Suitable answer that relates a feature and explains how the feature was used, expanded or modified to make it appropriate to the plan. The knowledge has clearly been applied to the plan.</td></tr><tr><td>1</td><td>Basic answer that identifies a feature</td></tr><tr><td>0</td><td>No creditable response</td></tr><tr><td>Note:</td><td>1 mark for explanation of follow on from (b)i; 1 mark for explanation appearing in (a) ×2</td></tr></table>
Example: For the biochemical treatment group I used a peripherally acting local anaesthetics that numbed the area when ‘rubbed in’ so that participants were not injected (invasive) or given orally given any drug. This would make the treatment similar to stimulating the skin with TENS.</td><td>4</td></tr>
<tr><td>11(c)(i)</td><td>Explain <u>one</u> reason for your choice of experimental design.

AO2

Candidates must use the experimental design stated in (a).
Award 2 marks: appropriate independent or related design is given, applied to the plan and worded correctly.
Award 1 mark: appropriate independent or related design is given, with an attempt to apply to the plan. Partial answer.
Award 0 mark: no creditable response. The design is incorrect or there is no attempt to apply it to the plan to the plan (only definition provided).

Examples:
• an independent design was chosen because it allows an experimental group to be compared directly to a control group or one treatment group with another (1 mark) related to plan (2 marks)
• a repeated design would control participant variables (1 mark) related to plan (2 marks)</td><td>2</td></tr>
</table>

Question	Answer	Marks
11(c)(ii)	**Explain <u>one</u> weakness of your choice of experimental design.** **AO3** Candidates must use the design stated in (c)i Award 2 marks: weakness is given and applied to the plan Award 1 mark: weakness is given without being applied to the plan Example: • with an independent design there is no control over participant variables (1 mark) related to study (2 marks) • a repeated measures design would not work because the same participant would do two (or more) conditions and the effect of the first might influence the second (and third) (1 mark) related to study (2 marks) • with a repeated measures design there is the possibility of order effects (1 mark) related to study (2 marks) • with a repeated measures design there is the possibility that the participant is more likely to work out the aim of the experiment (1 mark) related to study (2 marks) • with an independent design more participants are needed (1 mark) related to study (2 marks)	**2**
11(c)(iii)	**Explain <u>one</u> reason for your choice of an ethical guideline that you followed.** **AO2** Candidates must use the ethical guideline stated in (a). Award 2 marks: reason is given and applied to the plan Award 1 mark: reason is given without being applied to the plan Example: <u>Any appropriate guideline receives credit</u> • participants were given the **right to withdraw** from the study because… (1 mark) related to plan (2 marks) • participants gave **informed consent** because… (1 mark) related to plan (2 marks) • **confidentiality** was maintained because… (1 mark) related to plan (2 marks) • there was no **deception**, because…(1 mark) related to plan (2 marks)	**2**

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<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td colspan="3">Section B</td></tr>
<tr><td>12</td><td>McClelland proposed an achievement motivation theory with different types of need: achievement, affiliation and power.</td><td></td></tr>
<tr><td>12(a)</td><td>Plan a study using a questionnaire to investigate which type of McClelland’s needs is <u>most</u> common in teachers who teach 16–18-year-old students.

Your plan must include details about:
• sampling technique
• type(s) of data.

Use Table A: AO2 Application to mark candidate responses to this question.
Credit both general features and specific features of the plan.

<table><tr><td>The specific features of the plan <u>should</u> include:
• interview technique (telephone or face-to-face)
• interview format (structured, unstructured, semi-structured).
• question format (open and/or closed)
• examples of questions
• question scoring/interpretation
• • number of questions</td><td>The general features of the plan <u>should</u> include (if appropriate):
• sample and sampling technique
• ethical guidelines
• a procedure
• the location
• type(s) of data, analysis of data, use of descriptive statistics
• an aim or hypothesis (directional or non-directional)/null hypothesis
• steps for making the study valid and reliable</td></tr></table></td><td>10</td></tr>
</table>

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>12(b)</td><td>For one piece of psychological knowledge on which your plan is based:</td><td></td></tr>
<tr><td>12(b)(i)</td><td>Describe this psychological knowledge.

Syllabus: 4.1.1 Need theories. McClelland’s theory of achievement motivation including need for achievement, affiliation and power.

Answers are likely to include (other appropriate responses to be credited): Achievement motivation: McClelland’s achievement–motivation theory (1961) suggests that we have three work-related needs: Need for achievement – the need to get a job done, to master a task, to be successful. People want to achieve on the basis of their hard work and effort rather than on the basis of luck. Need for affiliation – the need to be liked and accepted by other people; effort is applied to creating and maintaining social relationships and friendships. Need for power – this concerns being influential in the lives of others and also in the control of others; the need for discipline is important.

<table>
<tr><td>Marks</td><td>Description</td></tr>
<tr><td>3–4</td><td>The knowledge is appropriate. Relevant points are correctly described in good detail.</td></tr>
<tr><td>1–2</td><td>Basic points are identified with some elaboration and understanding. The answer lacks detail (a sentence or two).</td></tr>
<tr><td>0</td><td>No creditable response</td></tr>
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</td><td>4</td></tr>
</table>

<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>12(b)(ii)</td><td>Explain how you used <u>two</u> features of this psychological knowledge to plan your study.

Candidates should explain how the psychological knowledge described in (b)(i) has informed their plan in part (a).

For each feature:
<table>
<tr><td>Marks</td><td>Description</td></tr>
<tr><td>2</td><td>Suitable answer that relates a feature and explains how the feature was used, expanded or modified to make it appropriate to the plan. The knowledge has clearly been applied to the plan.</td></tr>
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<tr><td>0</td><td>No creditable response</td></tr>
<tr><td>Note:</td><td>1 mark for explanation of follow on from (b)(i); 1 mark for explanation appearing in (a) ×2</td></tr>
</table>
Example: A closed question could be asked such as ‘Tick which of these is most important to you when you are teaching: the need to get a job done, the need to be liked, the need to be in control of others”. This would show an understanding of the three types of achievement linked to the design of a questionnaire.</td><td>4</td></tr>
<tr><td>12(c)(i)</td><td>Explain <u>one</u> reason for your choice of sampling technique.

Candidates must use the sampling technique stated in (a)

Award 2 marks: reason is given and applied to the plan
Award 1 mark: reason is given without being applied to the plan

Example:
• a random sample was chosen so everyone in the target population has an equal chance of participating (1 mark) related to plan (2 marks)
• an opportunity sample was chosen because large numbers can be obtained relatively more easily than other methods (1 mark) related to plan (2 marks)
• a volunteer sample was chosen because people are willing and more likely to participate; (1 mark) related to plan (2 marks).</td><td>2</td></tr>
</table>

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Question	Answer	Marks
12(c)(ii)	**Explain <u>one</u> weakness of your choice of sampling technique.** Candidates must use the sampling technique stated in (c)(i). Award 2 marks: weakness is given and applied to the plan Award 1 mark: weakness is given without being applied to the plan Example • a random sample means that people have to be known to 'choose them from a hat' and then they may not agree to participate (1 mark) related to plan (2 marks) • an opportunity sample might result in researcher bias, where participants who 'look appropriate' are selected (1 mark) related to plan (2 marks) • a volunteer sample might be biased because they volunteered; perhaps more likely to respond to demand characteristics (1 mark) related to plan (2 marks).	**2**
12(c)(iii)	**Explain <u>one</u> reason for your choice of type(s) of data.** Candidates must use the type(s)of data stated in (a). Award 2 marks: reason is given and applied to the plan Award 1 mark: reason is given without being applied to the plan Example: • quantitative data can be statistically analysed by researchers (1 mark) related to plan (2 marks) • qualitative data can allow participants to provide reasons for their answer (1 mark) related to plan (2 marks) • both quantitative and qualitative data can be gathered to provide 'best of both worlds' (1 mark) related to plan (2 marks)	**2**

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