

Cambridge International AS & A Level

PSYCHOLOGY**9990/41**

Paper 4 Specialist Options: Application and Research Methods

October/November 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 October/November 2025 series for most Cambridge IGCSE, Cambridge International A and AS Level components, and some Cambridge O Level components.

This document consists of **35** printed pages.

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.

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.

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.

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
BOD	Benefit of doubt
REP	Repetition
	Answer unclear
NOM	Used in the 10-mark planning Q in Section B to indicate wrong method
E	Used in the 10-mark planning Q in Section B to indicate ethics included
NAQ	Not answering question
SEEN	
	Supportive point
B	Used in the 10-mark planning Q in Section B to indicate bullet point included
NE	Used in the 10-mark planning Q in Section B to indicate no ethics included

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

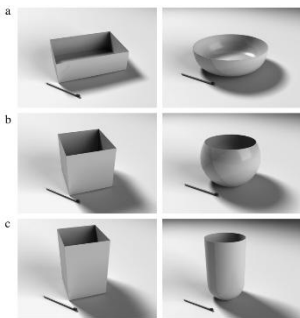
Level	Description	Marks
1	The response: • may not use the method required by the question. • may not answer the question set. • identifies a few general and/or method-specific features and detail is limited. • shows very little understanding and the plan would be impossible to replicate. • makes a limited 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	The key study by Grant et al. (2008) treated gambling disorder in one of two double-blind placebo-controlled trials, in a university and treatment centres.	
1(a)(i)	Identify the drug used in each trial. Syllabus: 1.3.3 Key study on treating gambling disorder with drugs and placebo: Grant et al. (2008). Marks: Award 1 mark for each correct answer. Definitive answers: • Nalmefene (1 mark) • Naltrexone (1 mark) NB: trial does not need to be specified (e.g. trial 1 = nalmefene) NB: 0 marks for opioid antagonists.	2
1(a)(ii)	State the duration of each trial. Marks: Award 1 mark for each correct answer. Definitive answers: • 16 weeks (1 mark) • 18 weeks (1 mark) NB: trial does not need to be specified (e.g. trial 1 = 16 weeks)	2
1(b)	Suggest why placebo-controlled trials were used in this study. 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>): • to find out whether a drug treatment works better than a substance that does not have an active drug in it (1 mark) • to act as a control group or baseline to compare 'with drug' and 'without drug' conditions (1 mark) • to provide a baseline for a comparison between drug and non-drug conditions (1 mark) • without it, it might lead to false conclusions about the effect of the drug (1 mark) • without a placebo group, participants would know that they are receiving an active drug and this alone might result in a change in behaviour (1 mark) • related to study: inclusion of nalmefene/naltrexone; treatment of gambling disorder (+1 mark). NB: answer must refer to placebo for 2 marks.	2

Question	Answer	Marks
1(c)	Explain <u>one</u> strength and <u>one</u> weakness of using multiple locations within this study. 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: • participants might be different, perhaps making the study more representative/generalisable (1 mark) such as those living close to a university compared to those living near a treatment centre (2 marks) • a different location may provide a different outcome (1 mark) a study conducted in a laboratory (University of Minnesota) compared to a real-life setting (out-patient psychiatric treatment centres) (2 marks) Weaknesses: • participants in one location might have different characteristics from participants in a different location (1 mark) in this study participants were either at a University (attended there/students) rather than those at treatment centres (non-students) (2 marks) • different locations might attract different types of personalities which might affect behaviour/results (1 mark) people perhaps might participate at a university rather than a treatment centre/might participate because it is a treatment centre (2 marks)	4

Question	Answer	Marks
2(a)	Outline <u>one</u> case study of schizophrenia. Syllabus 1.1.1 diagnostic criteria (ICD-11) of schizophrenia, including symptoms (positive and negative). A case study of schizophrenia. Marks: Award 2 marks for a detailed outline. Award 1 mark for a partial outline. Answers may include (other appropriate responses to be credited). Three case studies by Aneja (2018) Case 1: A 14-year-old boy, educated up to class 6, belonging to a family of middle socioeconomic status and residing in an urban area was brought with complaints of academic decline since 3 years and hearing voices for the past 2 years. Father was aggressive. Mother and child lived with grandparents. Child aggressive/violent outbursts. Early onset schizophrenia Case 2: An 11-year-old boy, educated up to class 3, belonging to a rural family of lower socioeconomic status was brought with complaints of academic decline since 2 years, repetition of acts, irritability since a year, and adoption of abnormal postures since 6 months. Case 3: A 7-year-old girl, student of second class, belonging to a high socioeconomic status family living in an urban locality was brought with complaints of academic decline, irritability, and abnormal behaviour for the past 9 months. NB: any case study can be included; beware of anecdotal examples.	2
2(b)	Suggest why the data gathered from a person with schizophrenia might <u>not</u> be reliable. Marks: Award 2 marks for an appropriate suggestion and applied to question with detail/elaboration/example. Award 1 mark for an appropriate suggestion identified but not applied. Answers may include (other appropriate responses to be credited): • the person may not be consistent in responses (1 mark) • the person may not be able to remember what was said on previous occasions (1 mark) • the person may be taking regular medication which may mask what they really think or feel (1 mark) • the person may report new things ‘voices in their head’ are telling them (1 mark) • (+ 1 mark) and so any data gathered would not be reliable/ with appropriate example NB: ‘consistency’ needs to be included for 2 marks.	2

Question	Answer	Marks
2(c)	Explain <u>two</u> strengths of using case studies to collect data on schizophrenia. Marks: up to 2 marks for each strength. 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 case study can be used as a pilot study (1 mark) • a participant is studied as part of their everyday life (1 mark), • a single participant can be studied in depth/detail (1 mark) • a participant may present a unique set of symptoms (1 mark) • strengths applied to individual candidate example (+1 mark)	4

Question	Answer	Marks
3	From the key study by Becker et al. (2011) on food package design, a pre-test on packaging shape was conducted.	
3(a)	Describe the procedure of the pre-test on packaging shape.  Fig. 1. Shape variants (prototypes) Syllabus: 2.4.1 Key study on food package design and taste perceptions: Becker et al. (2011). Marks: Award 1 mark for each different point up to 4 max. Definitive answers: • twenty participants evaluated three pairs of product variants (see Fig. 1) representing the intended shape manipulation • using a 12-item potency construct • comprising the items impressive, sour, mild (reverse coded), weak (reverse coded), humble (reverse coded), pure, bland (reverse coded), bitter, compliant (reverse coded), spicy, rebellious, independent] • participants indicated (using 7-point rating scales ranging from 'not at all' to 'very much so') to what extent they considered these items descriptive of the shape variants. • the six different cups were presented in random order.	4

Question	Answer	Marks
3(b)	Suggest <u>one</u> effect on the results if the pre-test had <u>not</u> been conducted. 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>): • there could be a lack of validity (1 mark) because the researchers could use a design which would be artificial such testing a 'square' yogurt container (or any of the other five container designs) (2 marks) • time could be wasted studying something that was not realistic or would not be used in real-life (1 mark) such as a square yogurt container for example (2 marks)	2
3(c)	Explain <u>one</u> strength and <u>one</u> weakness of conducting studies on package shape for food in the entrance hall of a supermarket. 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: • the location is congruent with the study (1 mark) people are in a supermarket which sells food so the location is ideal for testing food packaging (2 marks) • using opportunity sampling means that participants are readily available to the researchers (1 mark) with 'participants coming to them' ideal for package design testing (2 marks) Weaknesses: • people are in the supermarket to shop and may not fully concentrate on participating in a study (1 mark) which may result in the findings on package shape not being as valid as they otherwise might be (2 marks) • conducting a study, a field experiment, means that not all extraneous variables are controlled (1 mark) conducting a study at the entrance to a supermarket means that there may be many uncontrollable situational variables such as other shoppers (2 marks)	4

Question	Answer	Marks
4(a)	Explain what is meant by the term 'retail atmospherics'. Syllabus: 2.1.3 retail atmospherics. 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>): - retail atmospherics are the controllable characteristics of retail space which entice customers to enter the store, shop, and point of purchase (1 mark) examples include: - store interior design such as grid, freeform and racetrack layouts (+1 mark) - store exterior design such as window displays and landscaping (+1 mark) - music which can be interior, e.g. North et al (2003) or it can be background - odour as shown by Chebat and Michon (2003)	2
4(b)	Suggest the effect <u>one</u> retail atmospheric might have on shopper ambience. 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>): - a retail atmospheric (e.g. background music) might cause arousal or pleasure (PAD) (1 mark) which would attract a certain type of customer to the store (2 marks). - the same retail atmospheric might cause the opposite effect (1 mark) and put people off entering a particular store (2 marks) - credit any retail atmospheric which is outlined (1 mark) which is related to the PAD or emotion-cognition model (2 marks)	2
4(c)	Explain <u>two</u> strengths of studying retail atmospherics for the seller (retailer). Marks: up to 2 marks for each strength: 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 - what is known about retail atmospherics can be used to attract customers and increase sales (1 mark) e.g. playing classical music led diners to purchase more coffee (2 marks) - applying what is known will create feelings of arousal and customers will visit the store even without making a purchase (1 mark) if the store is known to play X type of music (or 'Z' smell) people who like that type of music/smell (e.g. fresh bread) are more likely to go to that store (2 marks)	4

Question	Answer	Marks
5	The key study by Bridge et al. (1988) on reducing stress during medical treatment divided the female participants into two experimental groups and one control group.	
5(a)(i)	Outline the procedure followed by the ‘relaxation plus imagery’ experimental group. Syllabus 3.4.3 Managing stress: Key study on relaxation and imagery in reducing stress during medical treatment: Bridge et al. (1988). Marks: Award 1 mark for correct point about relaxation (common to all groups); award 1 mark for imagery (specific to this group) Definitive answer: • both treatment groups (relaxation and relaxation plus imagery) were taught a relaxation technique which by a process of direct concentration focuses sensory awareness on a series of individual muscle groups. • patients were also given instructions for diaphragmatic breathing, which slows respiration, induces a calmer state, and reduces tension. • <i>in addition to the breathing and relaxation, each patient in the relaxation plus imagery group was taught to imagine a peaceful scene of her own choice as a means of enhancing the relaxation.</i>	2
5(a)(ii)	Outline the experimental design that was used in this study. Marks: Award 1 mark for each correct point (2 marks max) Definitive answer: Independent measures design (1 mark) relaxation only, and relaxation and imagery participated in only one condition (2 marks).	2
5(b)	Suggest <u>one</u> problem if a different experimental design was used in this study, other than the one you outlined in part (a)(ii). 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>): If a repeated measures design was used: • knowledge of one technique would influence the next (1 mark) making either the relaxation or relaxation plus imagery redundant (2 marks). • treatment would go on for too long, potentially leading to attrition (1 mark) and so the sample would be too small to determine the effectiveness of either the relaxation/ relaxation plus imagery technique (2 marks)	2

Question	Answer	Marks
5(c)	Explain <u>one</u> strength and <u>one</u> weakness of using a sample of female participants in studies on reducing stress. 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: - stress reduction techniques can be tailored specifically for females rather than a generic 'one size fits all' (1 mark) particularly useful if the technique is designed to help reduce their anxiety about their illness (2 marks) - stress reduction techniques can be tailored specifically for females with 'female illnesses' (1 mark) in this study the participants had breast cancer (2 marks). Weakness - rather than one technique fits all, it would mean that a range of different techniques would be needed (1 mark) that are appropriate for men (or even different age ranges/ different types of illness (2 marks). - The female/female illness techniques would not generalise depending on the illness (1 mark) men can get breast cancer; but not ovarian (females do not get prostate cancer) (2 marks).	4

Question	Answer	Marks
6(a)	Outline the methodology used in <u>one</u> study on improving adherence in children (e.g. Chaney et al. 2004). Syllabus 3.2.3 improving adherence. Improving adherence in children including a study, e.g. Chaney et al. (2004). Marks: Award for each correct feature (2 marks max) Answers may include (other appropriate responses to be credited): From the Chaney et al. study: - a matched questionnaire-based survey (1 mark) - two interviews in the child/parents' home conducted by the same person (1 mark) telephone interviews (at random) to check on medication from previous day (1 mark) NB: this is an 'e.g.' study so any appropriate alternative can receive credit. Watt et al's 'funhaler' is a likely alternative (old syllabus).	2

Question	Answer	Marks
6(b)	Suggest <u>one</u> ethical guideline that applies to the children in the study you outlined in part (a). 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>): • children cannot give informed consent (1 mark) in the Chaney et al. study the children were aged 1.5 to 6 years (2 marks) • children do not understand they have the right to withdraw, or will do so, even if it is explained to them (1 mark) which would apply to anyone under 16 years undergoing trials for a new adherence technique (2 marks)	2
6(c)	Explain <u>two</u> weaknesses of using parents/guardians to collect data about improving adherence in the children in their care. Do not refer to ethics in your answer. 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: • a parent may not know whether the child is taking medication or not (they think they do, but ...) (1 mark) which means that any data gathered on using the funhaler (or whatever example used) is not valid (2 marks) • a parent may want their child to be seen in a good light/ a parent may not be honest in their answers (1 mark) and so they may say that the child is using the (e.g. funhaler) when the child is not (2 marks)	4

Question	Answer	Marks
7	From the key study by Cuadrado et al. (2008) on women's access to managerial positions:	
7(a)(i)	State <u>two</u> features of the sample of participants used in this study. Syllabus 4.2.2 Key study on leadership style and gender: Cuadrado et al. (2008) Marks: Award 1 mark for each correct feature (max 2). Definitive answer • 136 participants • psychology students • from the Universidad Nacional de Educación a Distancia (National Open University of Spain), from the entire Spanish territory, of whom • 53% were women 47% were men • women mean age 27 years, SD = 6.6 and men mean age 29 years, SD = 6.8.	2

Question	Answer	Marks
7(a)(ii)	Outline what each participant was asked to do after reading the narrative (the description of the supervisor's behaviour). Marks: Award 2 marks for detail of either the first or second aspect. Award 1 mark for a partial outline. Most likely answer: quote: - participants were asked to evaluate a supervisor (1 mark) (male or female, depending on the experimental condition) of the service, who was occupying that position for a trial period (2 marks) - in the narrative, after reading the description of the supervisor's behavior, they were asked to collaborate in the evaluation process (1 mark) by means of an anonymous questionnaire in order to facilitate making decisions about the candidates (2 marks). Alternatively (quote) - a list of 14 adjectives (7 positive and 7 negative). Participants rated the degree to which they thought these adjectives were applicable to the supervisor, using a 7-point Likert-type scale, ranging from 1 (never) to 7 (always). The positive adjectives were: competent, intelligent, loyal, honest, clever, responsible, and optimistic. The negative adjectives were: careless, forgetful, discouraging, harmful for the team, bossy, snobbish, and dishonest. - supervisor's leadership capacity. a 7-point Likert-type scale, ranging from 1 (totally negative/totally disagree) to 7 (totally positive/totally agree). The items presented were: How would you evaluate X's general leadership capacity? X is a competent supervisor. How would you evaluate X's capacities and aptitudes as a supervisor? How would you evaluate X as a leader or supervisor? - Leadership effectiveness of the supervisor. A measure of 5 items with a 7-point Likert-type scale ranging from 1 (totally negative/totally disagree) to 7 (totally positive/totally agree). The items presented were: How would you evaluate X's general achievement as a supervisor? X is an effective manager. X knows how to manage people effectively. X has sufficient capacity to be considered a successful leader. X does not perform his/her work as supervisor well enough.	2
7(b)	Suggest why Cuadrado et al. used four different versions of the same narrative. 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>): - to act as a baseline/control for comparison with the IV (1 mark) about women and managerial positions (2 marks). - to mix each variable with each other to test combinations (1 mark) 2 (Male- stereotypical vs. Female-stereotypical leadership style) × 2 (Male vs. Female leader) (2 marks)	2

Question	Answer	Marks
7(c)	Explain <u>two</u> strengths of using an experiment to investigate women's access to managerial positions in this study. 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: - the DV can be precisely measured (1 mark) using rating scales (7-point scale) for leadership capacity and effectiveness and gathering quantitative data (2 marks) - all situational variables can be controlled (1 mark) such as temperature, lighting, etc so focus on task being measured, the 14 adjectives, is not influenced by any other factor (2 marks) - the procedure is standardised (1 mark) all participants receive the same instructions, the narrative about the leader's behaviour (2 marks)	4

Question	Answer	Marks
8	Walton's quality of working life (QWL) has an evaluation scale with eight conditions, including a fair and appropriate salary.	
8(a)	State <u>two</u> question items from the scale that relate to a fair and appropriate salary. Syllabus: 4.5.2 Measuring job-satisfaction. Walton's quality of working life (QWL) including eight conditions and QWL evaluation scale. Marks: Award 1 mark for each correct answer. Definitive answers (<u>other appropriate responses to be credited</u>): - How satisfied are you with your salary (remuneration)? - How satisfied are you with your salary, if you compare it to your colleagues' salary? - How satisfied are you with the recompenses and the participation in results that you receive from the company - How satisfied are you with the extra benefits (alimentation, transport, doctor, dentist, etc.) that your company offers to you?	2

Question	Answer	Marks
8(b)	Suggest how the reliability of the QWL evaluation scale could be tested. 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>): • test-retest where the test is repeated at a later date (1 mark). The QWL could be given to the same participant on different occasions (2 marks) • the split-half method involves splitting the test into two and administering each half of the test to the same person. (1 mark) The QWL scores from the two halves should show a strong correlation (2 marks).	2
8(c)	Explain <u>two</u> weaknesses of the question items from the QWL evaluation scale. 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 • many words used in the questionnaire are very complex and may not be understood by workers (1 mark) such as salubrity, alimentation, recompenses, polyvalence (2 marks) • many questions need thinking about to gain understanding before answering (1 mark) ranges such as 'How satisfied are you with the recompense and the participation in results that you receive from the company?' (2 marks) • workers may become bored answering it; give up; write any answer near the end (1 mark) it has 35 questions which is too long (2 marks)	4

Question	Answer	Marks		
9(a)	Plan a study using a structured observation to investigate the effectiveness of imaginal desensitisation for treating gambling disorder. • naturalistic or controlled observation • 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: • structured or unstructured • covert or overt • controlled or naturalistic • participant or non-participant • number of observers (inter-rater reliability) • behavioural categories • could include: event or time sampling </td><td> The general features of the plan <u>should</u> include (if appropriate): • sample and sampling technique • ethical guidelines • a procedure • 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>	The specific features of the plan <u>should</u> include: • structured or unstructured • covert or overt • controlled or naturalistic • participant or non-participant • number of observers (inter-rater reliability) • behavioural categories • could include: event or time sampling	The general features of the plan <u>should</u> include (if appropriate): • sample and sampling technique • ethical guidelines • a procedure • 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	10
The specific features of the plan <u>should</u> include: • structured or unstructured • covert or overt • controlled or naturalistic • participant or non-participant • number of observers (inter-rater reliability) • behavioural categories • could include: event or time sampling	The general features of the plan <u>should</u> include (if appropriate): • sample and sampling technique • ethical guidelines • a procedure • 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			

Question	Answer	Marks								
9(b)	For <u>one</u> piece of psychological knowledge on which your plan is based:									
9(b)(i)	Describe this psychological knowledge. Syllabus: 1.3.3 Treatment and management of impulse control disorders. imaginal desensitisation, including a study, e.g. Blaszczynski and Nower (2003) Description: Imaginal desensitisation involves teaching progressive muscle relaxation and then the person <i>visualises</i> themselves being exposed to the situation. This triggers the drive to carry out the impulsive behaviour and the aim is to reduce the strength of the drive. Blaszcznski and Nower (2003) found this technique was particularly effective with gamblers. There are six steps in a typical treatment sequence: Initiating the urge, planning to follow through on the urge, arriving at the venue, getting arousal and excitement with the behaviour, having ‘second thoughts’ about the behaviour and decreasing the attractiveness of the behaviour. Blaszcznski and Nower (2003) conducted initial sessions with the therapist then conducted at home. 0 marks for covert sensitisation. <table><tr><th>Marks</th><th>Description</th></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>	Marks	Description	3–4	The knowledge is appropriate. Relevant points are correctly described in good detail.	1–2	Basic points are identified with some elaboration and understanding. The answer lacks detail (a sentence or two).	0	No creditable response	4
Marks	Description									
3–4	The knowledge is appropriate. Relevant points are correctly described in good detail.									
1–2	Basic points are identified with some elaboration and understanding. The answer lacks detail (a sentence or two).									
0	No creditable response									

Question	Answer	Marks								
9(b)(ii)	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><th>Marks</th><th>Description</th></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></table> Example: In (b)(i) I explained how gamblers are taught progressive muscle relaxation with sessions specific to their type of gambling. Therefore in (a) I planned that after many sessions a structured observation can be conducted in a naturalistic setting to see whether they still engage in their specific type of gambling.	Marks	Description	2	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.	1	Basic answer that identifies a feature	0	No creditable response	4
Marks	Description									
2	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.									
1	Basic answer that identifies a feature									
0	No creditable response									
9(c)(i)	Explain <u>one</u> reason for your choice of naturalistic observation or controlled observation. Candidates should use the choice of interpretation/scoring 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: naturalistic observation because - it is conducted in a real-world setting (1 mark) such as a gambling casino where gambling behaviour could be covertly observed (2 marks) - behaviours are likely to be normal (high in ecological validity) (1 mark) because the participant will not know they are being observed in the casino and so effectiveness of treatment assessed (2 marks) - a full range of casino atmospherics are present (1 mark) so the effectiveness of the treatment in a real-world setting of a gambling casino is tested (2 marks) controlled observation because - it is conducted in a laboratory setting (1 mark) and so all variables such as the type of gambling, such as cards or machines, can be controlled (2 marks) - it is a 'safe' environment where the patient knows they are being observed (1 mark) and that they cannot lose (or win) real money (2 marks)	2								

Question	Answer	Marks
9(c)(ii)	Explain <u>one</u> strength of using a structured observation in your study. Candidates should use the choice of covert observation stated in (a). Award 2 marks if an appropriate strength is given and justified. Award 1 mark if an appropriate strength is given but not justified. Example • a structured observation uses behaviour checklists so observers know exactly what they are looking for, it is more reliable than unstructured observation (1 mark) related to study (2 marks) • a structured observation uses behaviour checklists two observers can independently record behaviour and their reliability checked (1 mark) related to study (2 marks) • a structured observation can be used as a technique to measure the DV in an experiment (1 mark) related to study (2 marks)	2
9(c)(iii)	Explain <u>one</u> reason for your choice of type(s) of data. Candidates should 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

Question	Answer	Marks
----------	--------	-------

Question	Answer	Marks		
10(a)	Plan a study using a field experiment to investigate the effect on spending when playing classical music in different types of restaurant. 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 • 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>	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	The general features of the plan <u>should</u> include (if appropriate): • sample and sampling technique • ethical guidelines • a procedure • 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	10
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	The general features of the plan <u>should</u> include (if appropriate): • sample and sampling technique • ethical guidelines • a procedure • 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			

Question	Answer	Marks								
10(b)	For <u>one</u> piece of psychological knowledge on which your plan is based:									
10(b)(i)	Describe this psychological knowledge. Syllabus: 2.1.2 Key study on musical style and restaurant customers' spending: North et al. (2003). Description: North et al. (2003) field experiment in a restaurant to investigate the effect of type of music on the amount of money spent. Conducted over 3 weeks so each of the three conditions of the IV (classical music, pop music and no music) tested on different days. 393 people ate in the restaurant over 3 weeks and listened to only one type of music (independent measures). The DV was actual spend in GBP broken down into starters, main course, dessert, coffee, bar drinks, and wine. Total spend also calculated. Most money was spent with classical music £32.50, pop music £29.46 and no music £29.73. There was very little difference in the amount spent on main course; greatest difference was spending on coffee: classical £1.06, pop £0.80 and no music £0.53. <table><tr><th>Marks</th><th>Description</th></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>	Marks	Description	3–4	The knowledge is appropriate. Relevant points are correctly described in good detail.	1–2	Basic points are identified with some elaboration and understanding. The answer lacks detail (a sentence or two).	0	No creditable response	4
Marks	Description									
3–4	The knowledge is appropriate. Relevant points are correctly described in good detail.									
1–2	Basic points are identified with some elaboration and understanding. The answer lacks detail (a sentence or two).									
0	No creditable response									
10(b)(ii)	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><th>Marks</th><th>Description</th></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></table> Example: Classical music can be played in an upmarket restaurant (similar to the one in the North et al. study) and also played in a 'fast-food' restaurant (the IV). Like North et al. the amount of money spent on individual products can be measured (the DV).	Marks	Description	2	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.	1	Basic answer that identifies a feature	0	No creditable response	4
Marks	Description									
2	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.									
1	Basic answer that identifies a feature									
0	No creditable response									

Question	Answer	Marks
10(c)(i)	Explain <u>one</u> reason for your choice of controls. Candidates should use the controls stated in (a). Award 2 marks: appropriate reason is given and applied to the plan Award 1 mark: appropriate 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 should 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 should 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) NB: 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. NB: 0 marks for a null hypothesis.	2

Question	Answer	Marks		
11(a)	Plan an experiment to investigate the effectiveness of biofeedback to manage stress in university students. Your plan must include details about: • experimental design • dependent variable. 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 • 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>	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	The general features of the plan <u>should</u> include (if appropriate): • sample and sampling technique • ethical guidelines • a procedure • 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	10
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	The general features of the plan <u>should</u> include (if appropriate): • sample and sampling technique • ethical guidelines • a procedure • 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			

Question	Answer	Marks								
11(b)	For <u>one</u> piece of psychological knowledge on which your plan is based:									
11(b)(i)	Describe this psychological knowledge. Syllabus: 3.4.3 Managing stress: psychological therapy: biofeedback, including a study e.g. Budzynski et al. (1969) Description: Budzynski and Stoyva (1969) conducted an experiment using biofeedback on 15 people suffering headaches. The biofeedback device could provide auditory feedback with the pitch of the tone determined by the level of muscle tension. Group 1: 'feedback' tone reflected level of muscle tension; group 2: received irrelevant constant low tone feedback; group 3 a no-feedback 'silent' group. The feedback group showed a 50% decrease, the no feedback group a 24% decline and the irrelevant feedback group a 28% <i>increase</i> in forehead muscle tension. As the syllabus defines Budzynski and Stoyva (1969) as an 'e.g. study' any alternative research on biofeedback can receive credit. <table><tr><th>Marks</th><th>Description</th></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>	Marks	Description	3–4	The knowledge is appropriate. Relevant points are correctly described in good detail.	1–2	Basic points are identified with some elaboration and understanding. The answer lacks detail (a sentence or two).	0	No creditable response	4
Marks	Description									
3–4	The knowledge is appropriate. Relevant points are correctly described in good detail.									
1–2	Basic points are identified with some elaboration and understanding. The answer lacks detail (a sentence or two).									
0	No creditable response									
11(b)(ii)	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><th>Marks</th><th>Description</th></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></table> Example: Budzynski and Stoyva (1969) used a device like a GSR (galvanic skin response) so the same device was used in my study. University students experiencing stress would undergo at least ten sessions of biofeedback and other would have no biofeedback (like Budzynski and Stoyva). The results from the two groups could be compared.	Marks	Description	2	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.	1	Basic answer that identifies a feature	0	No creditable response	4
Marks	Description									
2	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.									
1	Basic answer that identifies a feature									
0	No creditable response									

Question	Answer	Marks
11(c)(i)	Explain <u>one</u> reason for your choice of experimental design. Candidates should 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 (only definition provided). Example - 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)	2
11(c)(ii)	Explain <u>one</u> weakness of your choice of type of experiment. Candidates should 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 - laboratory experiments have low ecological validity and behaviour may be different from that in real life (1 mark) example from part (a) of plan (2 marks) - field experiments are perhaps more difficult to control but possible to have high levels of ecological validity (1 mark) example from part (a) of plan (2 marks)	2
11(c)(iii)	Explain <u>one</u> reason for your choice of dependent variable. Candidates should use the dependent variable stated in (a). Award 2 marks if an appropriate reason is given and justified. Explanation of why the specific DV was chosen (1 mark) related to study i.e. actual DV (2 marks) Award 1 mark if an appropriate reason is given but not justified. Example: - level of tone emitted [or number on scale shown] from the GSR (galvanic skin response) (1 mark) was chosen because this is a recognised measure of stress and is commonly used by practitioners (2 marks) - result of a saliva sample on a scale 0–10 (1 mark) because this is what was used by Evans and Wener, 2007 in their study of stress on a commuter train (2 marks) - chosen because it provides quantitative data allowing comparisons and descriptive statistics to be displayed (1 mark)	2

Question	Answer	Marks				
12(a)	Plan a study using a questionnaire to investigate levels of job satisfaction following a job enlargement. Your plan must include details about: • questionnaire technique • question format. 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:</td><td>The general features of the plan <u>should</u> include (if appropriate):</td></tr><tr><td> • technique (paper/pencil, online, postal) • format (open and/or closed) • examples of questions • question scoring/interpretation • number of questions </td><td> • sample and sampling technique • ethical guidelines • a procedure • 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>	The specific features of the plan <u>should</u> include:	The general features of the plan <u>should</u> include (if appropriate):	• technique (paper/pencil, online, postal) • format (open and/or closed) • examples of questions • question scoring/interpretation • number of questions	• sample and sampling technique • ethical guidelines • a procedure • 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	10
The specific features of the plan <u>should</u> include:	The general features of the plan <u>should</u> include (if appropriate):					
• technique (paper/pencil, online, postal) • format (open and/or closed) • examples of questions • question scoring/interpretation • number of questions	• sample and sampling technique • ethical guidelines • a procedure • 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					

Question	Answer	Marks								
12(b)	For <u>one</u> piece of psychological knowledge on which your plan is based:									
12(b)(i)	Describe this psychological knowledge. Syllabus: 4.5.1 Theories of job satisfaction. techniques of job design: enrichment, rotation and enlargement, e.g. Belias and Sklikas, (2013). Description: Job enlargement ‘transforms the jobs to include more and/or different tasks’. The aim is to stimulate the interest of employee in the job, namely increasing job attraction, through the differentiated and various tasks that the employee performs in his/her job. Consequently, the objective of job enlargement is to design jobs where the needs of employees meet the interests of the organisation. Horizontal enlargement: the degree to which a job contains many tasks’ This is achieved through adding more tasks to the existing tasks performed by an employee at the same skill level. The goal is to reduce the level of specialisation and boredom of work, to reduce the number of difficult tasks, and finally to lead towards the development of new employee skills. Vertical enlargement is ‘the degree to which the employees decide how the task is to be done’. The goal is to enhance the status and the self-fulfillment needs of the employees, while it gives the employees the opportunity to take part in the organisation, the planning and the control of tasks. <table><tr><th>Marks</th><th>Description</th></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>	Marks	Description	3–4	The knowledge is appropriate. Relevant points are correctly described in good detail.	1–2	Basic points are identified with some elaboration and understanding. The answer lacks detail (a sentence or two).	0	No creditable response	4
Marks	Description									
3–4	The knowledge is appropriate. Relevant points are correctly described in good detail.									
1–2	Basic points are identified with some elaboration and understanding. The answer lacks detail (a sentence or two).									
0	No creditable response									

Question	Answer	Marks								
12(b)(ii)	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><th>Marks</th><th>Description</th></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></table> Example: In (b)(i) I explained that one aim of horizontal enlargement was to reduce boredom. Therefore, in (a) I used this knowledge to plan that after having their job enlarged horizontally, so each worker is responsible for more tasks, they will be given a questionnaire with closed questions, asking (for example) ‘to what extent has the change in tasks stimulated your interest in the job?’ using a 5-point scale.	Marks	Description	2	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.	1	Basic answer that identifies a feature	0	No creditable response	4
Marks	Description									
2	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.									
1	Basic answer that identifies a feature									
0	No creditable response									

Question	Answer	Marks
12(c)(i)	Explain <u>one</u> reason for your choice of questionnaire technique. Candidates should use the choice of question format stated in (a). Award 2 marks if an appropriate reason is given and justified. Award 1 mark if an appropriate reason is given but not justified. Paper/pencil • because they are face-to-face perhaps participants are more likely to complete the questionnaire and perhaps be more honest in their answers (1 mark) related to plan (2 marks). • paper/pencil because the researcher is there at the time watching and waiting and so the environment is perhaps more likely to be controlled if done in a laboratory with students for example (1 mark) related to plan (2 marks). Online • online because the sample size can be much larger and potentially much more diverse than paper/pencil or face-to-face which is probably done in a relatively restricted place (in street, laboratory) (1 mark) related to plan (2 marks). • online because there is no researcher waiting, watching or influencing the person in any way. The participant is more likely to be honest in their responses (1 mark) related to plan (2 marks). Postal • postal because the sample size can be much larger and potentially much more diverse than paper/pencil or face-to-face which is probably done in in a relatively restricted place (in street, laboratory) (1 mark) related to plan (2 marks). • postal because there is no researcher waiting, watching or influencing the person in any way. The participant is more likely to be honest in their responses (1 mark) related to plan (2 marks).	2
12(c)(ii)	Explain <u>one</u> weakness of your choice of questionnaire technique. Candidates should use the question format in (c)(i). Award 2 marks if weakness is given and applied to the plan Award 1 mark if weakness is given without being applied to the plan Example • online means that the participant is perhaps more likely to drop-out without completing the questionnaire (right to withdraw) (1 mark) related to plan (2 marks). • paper-pencil/face-to-face means that the participant may be more likely to respond to demand characteristics and 'say what they think the researcher wants them to say' (1 mark) related to plan (2 marks) • postal means that the questionnaire can be treated like 'junk-mail' and thrown away; it could be started and then forgotten; it may not be returned because that may incur costs for the participant (1 mark) related to plan (2 marks).	2

Question	Answer	Marks
12(c)(iii)	Explain <u>one</u> reason for your choice of question format. Candidates must use the question format 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: open questions: - the data gathered may be 'rich' and detailed (1 mark) related to plan (2 marks) - it allows participants the opportunity to express a range of feelings and explain their behaviour (1 mark) related to plan (2 marks) closed questions: - answers are in the same format for all participants (1 mark) related to plan (2 marks) - answers may be easy to score/analyse (1 mark) related to plan (2 marks) - relatively large numbers of participants can be questioned relatively quickly (1 mark) related to plan (2 marks)	2

Cambridge International AS & A Level

PSYCHOLOGY**9990/42**

Paper 4 Specialist Options: Application and Research Methods

October/November 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 October/November 2025 series for most Cambridge IGCSE, Cambridge International A and AS Level components, and some Cambridge O Level components.

This document consists of **33** printed pages.

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.

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.

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.

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
BOD	Benefit of doubt
REP	Repetition
	Answer unclear
NOM	Used in the 10-mark planning Q in Section B to indicate wrong method
E	Used in the 10-mark planning Q in Section B to indicate ethics included
NAQ	Not answering question
SEEN	
	Supportive point
B	Used in the 10-mark planning Q in Section B to indicate bullet point included
NE	Used in the 10-mark planning Q in Section B to indicate no ethics included

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

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 Lovell et al. (2006) on the treatment of obsessive-compulsive disorder (OCD):	
1(a)	Outline <u>two</u> measures used in this study, other than the client satisfaction questionnaire. Syllabus: 1.5.3 Key study on treatment of obsessive-compulsive disorder using telephone administered cognitive-behavioural therapy (CBT): Lovell et al. (2006). Marks: Award 2 marks for a detailed outline (e.g. two or more features of the measure). Award 1 mark for a partial outline (e.g. one feature) Award 1 marks for identification of both; 0 marks for identification of only one. Definitive answer (quote): • Yale Brown obsessive compulsive (Y-BOCS) checklist (self-report version). This is a 10 item questionnaire; each question scores between 0 and 4 (0 no symptoms, 4 severe symptoms). The total score range is 0–7 very mild, 8–15 mild, 16–23 moderate, 24–31 marked, and 32–40 severe. NB: the YBOCS can be administered by a clinician in a semi-structured, face-to-face interview. Lovell et al. used the self-report version, so no credit for 'interview'. • a secondary outcome measure was the Beck Depression Inventory. (21 items, 0–3 scale, 63 points max) NB: 0 marks for any question or what Y-BOCS/BDI is measuring (ie OCD/Depression)	4
1(b)	Suggest how the validity of <u>one</u> of these measures could be tested. 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. NB does not need to use the terms criterion validity or construct validity. • concurrent validity by comparing the Y-BOCS/BDI to other measures of OCD (1 mark) and if the two scores have a strong correlation the Y-BOCS/BDI could be said to be valid (2 marks) • construct validity by seeing if seeing if the Y-BOCS/BDI matches up with theoretical ideas about what it is supposed to be measuring (1 mark) and if it does the Y-BOCS/BDI could be said to be valid (2 marks). • ecological validity: does the scale apply to real life (1 mark) do the questions (on paper) reflect real life experiences of people with OCD (2 marks) • temporal validity: test the Y-BOCS/BDI over time (1 mark) to see if the person shows any improvement (2 marks) e.g. reduction on obsessions or compulsions could be said to be valid (2 marks)	2

Question	Answer	Marks
1(c)	Explain <u>two</u> strengths of using rating scales to assess the effectiveness of telephone-administered treatment of OCD. 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>). • a rating scale can be used to assess the same person over time (1 mark) to see if there is any improvement (or not) in their OCD after treatment (2 marks). • a rating scale can be used to compare one person with another (1 mark) • a rating scale can be used as a diagnostic/assessment tool (1 mark) to determine the features of the person's OCD and the severity of it on a standardised scale (2 marks).	4

Question	Answer	Marks
2	Miller used a case study to support his 'feeling-state theory' of impulse control disorders.	
2(a)	Outline Miller's feeling-state theory explanation of impulse control disorders. Syllabus 1.3.2 explanations of impulse control disorders. cognitive: Miller's feeling-state theory. Marks: Award 2 marks for a detailed outline. Award 1 mark for a partial outline. Definitive answer: The feeling-state theory (Miller, 2010) argues that disorders are created when intense positive feelings ('intense desire') become linked with specific behaviours (a 'triggering event'), and this creates a state-dependent memory or a 'feeling-state'. <pre> graph LR A[Intense desire] -- "+" --> B[Intense positive Experience] B -- "→" --> C[Feeling-State] </pre> To generate the same feeling-state, the person compulsively repeats the same behaviour, even if it is detrimental. This re-enactment creates the impulse- control disorder. <pre> graph LR A[Feeling-state] -- "+" --> B[Triggering event] B -- "→" --> C[Desired feeling] C -- "+" --> D[Compulsive behaviour] </pre> Note: diagrams not needed (but do help)	2

Question	Answer	Marks
2(b)	Suggest <u>one</u> way Miller could support his theory, other than with a case study. 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). • observation (features) of behaviour appropriate to the ICD being studied (1 mark) For example how much/how often a person engages in the particular behaviour (2 marks) • interview (format/technique) by a person qualified to assess 'feeling states' ICD's (1 mark) with appropriate example (2 marks) • questionnaire (format/technique) constructed to assess feeling-states (1 mark) with appropriate example (2 marks)	2
2(c)	Explain <u>two</u> reasons why generalisations cannot be made about feeling-states from one study. Marks: Up to 2 marks for each reason Award 2 marks for an appropriate reason stated and applied as required by the question with detail / elaboration / example. Award 1 mark for an appropriate reason stated but not applied. Answers may include (other appropriate responses to be credited): • feeling-states is only one explanation of ICD's, there are other explanations which may be more/less accurate (1 mark) such as cognitive, behavioural and psychodynamic (2 marks) • Miller also used the case study of John to support his explanation (1 mark). John is only one person and generalising from a case study is a problem (2 marks) • there is only one study to support Miller's theory, so it is lacking methodological support (1 mark) • Miller's theory is too general and it may not apply to all ICD's (1 mark) Miller's example is John with a gambling problem (2 marks) NB: no marks for cultural differences; 'feeling states' are internal/psychological that everyone has.	4

Question	Answer	Marks
3	From the key study by Snyder and DeBono (1985) on consumer personality and advertising:	
3(a)	Outline the <u>two</u> types of message that were presented to the participants in study 3. Syllabus: 2.5.2 Key study on consumer personality and advertising: Snyder and DeBono (1985), focus on study 3, specifics of methodology for study 1 and study 2 will not be needed. Marks: Award 2 marks for a detailed outline (identification plus detail) × 2 Award 1 mark for a partial outline (identification and basic sentence) × 2 Award 1 mark for correct identification of both terms. 0 marks for identification of only one. Definitive answers: • image message: appearance ('the image associated with the use') The results of tests have indicated this brand usually rates <u>about average in how it cleans your hair</u>, it consistently rates above average in how good it makes your hair look. • quality message: quality ('the claim about the quality of the product') The results of tests have indicated this brand usually rates <u>about average in how good it makes your hair look</u>, it consistently rates above average in how clean it gets your hair.	4
3(b)	Suggest how <u>one</u> feature of the design of a telephone interview could have been applied in this study. 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>): • questions should be as simple as possible (as nothing is written/seen) (1 mark) participants were asked 'how much they'd like to try the shampoo?' (2 marks) • the number of questions is minimal (1 mark) only one main question was asked e.g. as above (2 marks) • the time taken to complete the questionnaire should be short (e.g. 20 mins for total interview) (1 mark) only one main question was asked (2 marks) • answers to questions should be uncomplicated, otherwise people forget what the first answer is (1 mark) participants used a five-point scale from 'definitely not' to 'definitely, yes' (+1 mark) or asked a percentage (+1 mark)	2

Question	Answer	Marks
3(c)	Explain <u>one</u> strength and <u>one</u> weakness of using university students as participants in this study on consumer personality and advertising. 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: - students may be readily available; sample is standardised as all participants are students (1 mark) and students are consumers and have a personality just like any other age group (2 marks) - conducting a study on students can be a pilot study to test for strengths/weaknesses (1 mark) before rolling it out to people of all ages to investigate consumer personality and advertising (2 marks) Weaknesses: - students may respond to demand characteristics because they know they are participating in a study (1 mark) about consumer personality and advertising (2 marks). - students may have very little or no experience in 'real' work environments (1 mark) and so any results may not be generalised to 'real' people (2 marks).	4

Question	Answer	Marks
4	Cialdini outlined six ways to close a sale.	
4(a)	Outline what is meant by the term 'scarcity' in relation to closing a sale, using any sales example. Syllabus: 2.4.2 selling a product; Cialdini's six ways to close a sale. Marks: Award 1 mark for outline. Award 1 mark for example. NB: Cialdini identifies six 'principles of persuasion': reciprocity, scarcity, authority, consistency, liking and consensus. Only scarcity is creditworthy. Answers may include (other appropriate responses to be credited): - Scarcity is 'buy now before there are none left' Scarcity triggers action. Products that are scarce are more valued when they are limited (1 mark) - Worchel et al. (1975) conducted the 'cookie jar experiment' where people rated the quality of the two cookies to be higher than the ten cookies (+1 mark) - scarcity applies when booking flights, hotels, etc. Such things are there to encourage buying when what is on offer is hardly ever scarce. Wordings such as 'last day today'; 'limited offer'; 'only two more available'. (+1 mark)	2

Question	Answer	Marks
4(b)	Suggest <u>one</u> reason why the use of scarcity leads people to buy a product. 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>): • people like a bargain, want something for less than the usual cost (1 mark) anecdotal example e.g. taking the 'last seat available at this price' on a bus/plane/etc. (2 marks) • people like to acquire things before others/have so others cannot have, so will take up the last one before anyone else can (1 mark) example as above/anecdotal alternative (2 marks). • if people delay they may miss out, so buy now or be disappointed (1 mark) example as above/anecdotal alternative (2 marks)	2
4(c)	Explain <u>two</u> strengths of using scarcity, for the seller of a product. 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>): • sellers can sell more of their product (1 mark) such as seats on an aeroplane / rooms in a hotel when they have ample still on offer (2 marks) • sellers can sell items at the end of a line; before they are out-of-date'; the last few before new models are brought in (1 mark) e.g. offer on an 'old' iphone before the latest model becomes available (2 marks)	4

Question	Answer	Marks
5	From the key study by Savage and Armstrong (1990) on the effect of practitioner style on patient satisfaction:	
5(a)	Describe <u>two</u> ways that ethical guidelines were followed in this study. Syllabus 3.1.2 Key study for the effect of practitioner style on patient satisfaction: Savage and Armstrong (1990). Marks: Award 2 marks for correct description. Award 1 mark for a partial description × 2 Award 1 mark for identification of any two appropriate guidelines. Definitive answers: • informed consent: patients should not be studied without their agreement (1 mark). 'We obtained patients' consent for the study by giving all patients attending each surgery a written request to allow audio tape recording of the consultation as part of a research project. If the patient refused to take part or was ineligible for the above reasons the next eligible patient to consult was selected.' (2 marks) • psychological harm: patients should leave a study in the same state as they were before starting (1 mark) (i) 'Patients were also excluded if it was thought that they would be upset by taking part in the study or would be incapable of completing a part of it.' (ii) 'they were excluded if they presented with a life threatening condition or for administrative or preventive measures only'. (2 marks) • right to withdraw (1 mark) '30 failed to complete the initial assessment; 110 failed to complete the assessment one week later'. (2 marks) NB: alternative answers can be credited if the ethical guideline followed is supported with a legitimate example from the study.	4
5(b)	Suggest <u>one</u> way that data about satisfaction with the doctor could have been collected, other than by postal questionnaire. 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>): • participants could have participated in a telephone interview (1 mark) which could ask exactly the same questions as the postal questionnaire (2 marks). • participants could have returned to the surgery to complete the questionnaire (1 mark) so more likely data about consulting style would be gathered rather than not returning a postal questionnaire (2 marks).	2

Question	Answer	Marks
5(c)	Explain <u>one</u> strength and <u>one</u> weakness of collecting data on patient satisfaction one week after the consultation, as done in this study. 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: - one week is sufficiently close enough to the event for people to remember details of what happened (1 mark). This means that data gathered will be appropriate to consulting style (2 marks). - one week is appropriate for people to reflect on their experiences; respond with thought not knee-jerk emotional response (1 mark). This means that data gathered will be appropriate to consulting style (2 marks). Weaknesses: - one week is perhaps too long and people might have forgotten important details (1 mark) this means that data gathered regarding consulting style will be flawed (2 marks). - a week is a long time and things may happen to the person to prevent them from responding; perhaps they drop out or are not available (1 mark) this means that data gathered regarding consulting style will be flawed (2 marks).	4

Question	Answer	Marks
6(a)	Outline how <u>one</u> study used fear arousal to promote health (e.g. Janis and Feshbach, 1953). Syllabus 3.5.1 fear arousal: use of fear to improve health, including a study, e.g. Janis and Feshbach (1953). Marks: Award 2 marks for a detailed outline. Award 1 mark for a partial outline. <i>NB: this question uses an 'e.g. study' so any appropriate alternative should receive credit.</i> Answers may include (other appropriate responses to be credited): Janis and Feshbach (1953) conducted a study on oral/dental hygiene. There were four groups: a minimal fear group, a moderate fear group, a strong fear group and a control group. They assessed the effectiveness of each level of fear through self-report questionnaires given before, immediately after, and 1 week after the fear presentations. It was found that although the strong fear group did arouse most fear, the minimal fear presentation was most effective in conformity to oral hygiene behaviour. The minimal fear presentation group showed 36% agreement with the advice but agreement was just 8% with the strong (scary) presentation, suggesting that low levels of fear are best.	2

Question	Answer	Marks
6(b)	Suggest <u>one</u> way the fear arousal and providing information strategies could be used together to promote fire safety behaviour. 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): • fear of fire (fear arousal) could be shown and followed by ways to prevent fire (providing information) (1 mark) • example: by presenting an image/video to of a fire scare people and then information could be provided on (i) how to put out the fire; (ii) how to escape from the fire; (iii) actions that could be taken to prevent a fire. (2 marks) Note: 0 marks for unethical suggestions.	2
6(c)	Explain <u>two</u> weaknesses of using fear arousal to promote health. Marks: Up to 2 marks for each weakness. 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. Note: any 'health related' example creditworthy such as smoking, diet, dental, etc. Answers may include (other appropriate responses to be credited): • the level of fear created might be too much and people respond negatively (1 mark) • the level of fear might be too mild and no-one responds sufficiently to have any change in behaviour (1 mark) • using fear may scare people into action, but without information being provided in addition, people would not know what to do to change behaviour (1 mark) • any 'health related' example creditworthy such as smoking, diet, dental, etc (+1 mark)	4

Question	Answer	Marks
7	The key study on applying self-determination theory to motivational rewards by Landry et al. (2019) was conducted in a laboratory.	
7(a)	Describe the <u>two</u> measures used to control individual differences in this study. Syllabus 4.1.3 Key study for applying self-determination theory to motivational rewards: Landry et al. (2019), focus on study 1, specifics of methodology from study 2 will not be needed. Marks: Award 2 marks for a detailed outline. Award 1 mark for a partial outline × 2 Award 1 mark for identification of both perceived value of reward and positive and negative affect. Definitive answer: (quote) Control variables. To further control for confounding individual differences arising from the two conditions of task instructions, participants completed two measures. • perceived value of reward. Participants rated on a 3-item scale how valuable the reward was. (1 mark) The composite score was used to control for individual differences in motivation arising from variations in the perceived value of the reward offered (2 marks) • positive and negative affect (i.e. mood). Participants completed the Positive affect and Negative affect Scale-Short form (1 mark). Composite scores reflecting their positive affect, based on indicators such as feeling 'alert' and 'inspired', and their negative affect, based on indicators such as feeling 'upset' and 'nervous,' were used in the main analyses to control for individual differences in affect arising from reading either instruction paragraph (2 marks)	4
7(b)	Suggest <u>one</u> reason why using a laboratory could limit the application of this study to everyday life in organisations. 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). • participants know where they are (a lab) and this might affect the way they perform in the study (1 mark) being in a laboratory is not a real life organisation (2 marks). • participants in a laboratory know that the study is not real (1 mark) they know that the motivational rewards are artificial (2 marks).	2

Question	Answer	Marks
7(c)	Explain <u>two</u> strengths of using a laboratory to investigate motivational rewards. 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 (other appropriate responses to be credited): - the participants must give some form of informed consent because they know they are participating in a study in a laboratory (1 mark) they know the study is investigating women's access to managerial positions (2 marks) - all situational variables can be controlled (1 mark) such as temperature, lighting, etc. so focus on task being measured, the 14 adjectives, is not influenced by any other factor (2 marks) - the procedure is standardised, giving consistency (1 mark) all participants receive the same instructions, the narrative about the leader's behaviour (2 marks)	4

Question	Answer	Marks
8	Scouller proposed three levels of leadership.	
8(a)	Outline what is meant by a 'private' level of leadership. Syllabus: 4.2.2 Leadership style. Scouller's levels of leadership including public, private and personal levels. Marks: Award 2 marks for a detailed outline. Award 1 mark for a partial outline. Answers may include (other appropriate responses to be credited): - Private – handling individuals on a one-to-one basis. Each person should be treated with respect because they have different knowledge, experience, motivation and confidence. There are 14 private leadership behaviours in two categories: - individual purpose and task, such as appraising, disciplining, setting goals - individual building and maintenance, e.g. building relationships, recognising talent.	2

Question	Answer	Marks
8(b)	Suggest <u>one</u> closed question that a worker could be asked to investigate a leader's private level of leadership. Marks: Award 2 marks for an appropriate suggestion [closed question and answer options] and applied to study with detail / elaboration / example (example of private leadership) Award 1 mark for partial suggestion (e.g. closed question but no answer options) and applied. Answers may include (<u>other appropriate responses to be credited</u>): - on a scale of 1–5 (1 = low) 'How good is your leader at building relationships? (or whatever feature (see list above) 'Is your leader good at recognising talent?' Yes/No	2
8(c)	Explain <u>two</u> weaknesses of asking workers about their leader's private level of leadership. Marks: Up to 2 marks for each weakness. 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>): - the worker may not tell the truth, exaggerate or underemphasise details (1 mark) which may lead the researcher to make inaccurate conclusions about the leader's behaviour (2 marks) - the worker may be afraid that if they tell the truth they may lose their job (1 mark) and so what is said about the leader may be false (2 marks) - the worker may be a close follower (conformist follower) and support all the leader's decisions, or may be an alienated follower and not support the leader (1 mark) as a result data gathered may be flawed in judging the leader and their behaviour (2 marks)	4

Question	Answer	Marks								
9(a)	Plan a study using a questionnaire to investigate thoughts about fires in people diagnosed with pyromania. Your plan must include details about: • question format • questionnaire technique 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 • 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>	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	The general features of the plan <u>should</u> include (if appropriate): • sample and sampling technique • ethical guidelines • a procedure • 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	10						
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	The general features of the plan <u>should</u> include (if appropriate): • sample and sampling technique • ethical guidelines • a procedure • 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									
9(b)	For <u>one</u> piece of psychological knowledge on which your plan is based:									
9(b)(i)	Describe this psychological knowledge. Syllabus: 1.3.1 diagnostic criteria (ICD-11) of impulse control disorders: Kleptomania, pyromania & gambling disorder. Description: Pyromania is where a person has the urge to deliberately start a fire (and often to watch the fire or emergency services). Specifically, before setting the fire, the person must have felt some feelings of tension or arousal, must show that attraction to fire, must feel a sense of relief or satisfaction from setting the fire and witnessing it, and must not have other motives for setting the fire. Characteristics of addictions (Griffiths) may also be included. Note: 'PSAS' (like K-SAS) does not exist so 0 marks. <table><tr><th>Marks</th><th>Description</th></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>	Marks	Description	3–4	The knowledge is appropriate. Relevant points are correctly described in good detail.	1–2	Basic points are identified with some elaboration and understanding. The answer lacks detail (a sentence or two).	0	No creditable response	4
Marks	Description									
3–4	The knowledge is appropriate. Relevant points are correctly described in good detail.									
1–2	Basic points are identified with some elaboration and understanding. The answer lacks detail (a sentence or two).									
0	No creditable response									

Question	Answer	Marks								
9(b)(ii)	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><th>Marks</th><th>Description</th></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></table> Example: Question format could be open, asking for example ‘Describe how you feel after watching a fire’. This links the question format I used in (a) with psychological knowledge about feelings after watching a fire I outlined in (b)(i).	Marks	Description	2	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.	1	Basic answer that identifies a feature	0	No creditable response	4
Marks	Description									
2	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.									
1	Basic answer that identifies a feature									
0	No creditable response									
9(c)(i)	Explain <u>one</u> reason for your choice of question format. Candidates must use the question format 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 (other appropriate responses to be credited): open questions: - the data gathered may be ‘rich’ and detailed (1 mark) related to plan (2 marks) - it allows participants the opportunity to express a range of feelings and explain their behaviour (1 mark) related to plan (2 marks) closed questions: - answers are in the same format for all participants (1 mark) related to plan (2 marks) - answers may be easy to score/analyse (1 mark) related to plan (2 marks) - relatively large numbers of participants can be questioned relatively quickly (1 mark) related to plan (2 marks) both closed and open: - open and closed are used to gather both qualitative and quantitative data (1 mark) related to plan (2 marks)	2								

Question	Answer	Marks
9(c)(ii)	Explain <u>one</u> weakness of your choice of question format. Candidates must use the question format 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 (other appropriate responses to be credited): Open questions: • participants may not wish to express a range of feelings or explain their behaviour (1 mark) related to plan (2 marks). • Answers may be more difficult to analyse because it is qualitative data with no scale/fixed answers (1 mark) related to plan (2 marks) Closed questions: • participants have no opportunity to express a range of feelings or explain their behaviour stating 'yes' for example, does not allow participants to explain how they feel (1 mark) related to plan (2 marks) • participants can only respond with the answer options they have which might be forced (4-point scale) or limited (5-point scale) (1 mark) related to plan (2 marks) Both open and closed: • longer data analysis (e.g. recording and categorising open answers; use of judges/raters?) (1 mark) related to plan (2 marks)	2

Question	Answer	Marks
9(c)(iii)	Explain <u>one</u> reason for your choice of questionnaire technique. Candidates should use the questionnaire 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 (other appropriate responses to be credited): Paper/pencil • because they are face-to-face perhaps participants are more likely to complete the questionnaire and perhaps be more honest in their answers (1 mark) related to plan (2 marks). • paper/pencil because the researcher is there at the time watching and waiting and so the environment is perhaps more likely to be controlled if done in a laboratory with students for example (1 mark) related to plan (2 marks). Online • online because the sample size can be much larger and potentially much more diverse than paper/pencil or face-to-face which is probably done in a relatively restricted place (in street, laboratory) related to plan (2 marks). • online because there is no researcher waiting, watching or influencing the person in any way. The participant is more likely to be honest in their responses (1 mark) related to plan (2 marks). Postal • postal because the sample size can be much larger and potentially much more diverse than paper/pencil or face-to-face which is probably done in in a relatively restricted place (in street, laboratory) (1 mark) related to plan (2 marks). • postal because there is no researcher waiting, watching or influencing the person in any way. The participant is more likely to be honest in their responses (1 mark) related to plan (2 marks).	2

Question	Answer	Marks								
10(a)	Plan an experiment to investigate differences between adult males and adult females in brand recognition. Your plan must include details about: • directional or non-directional hypothesis • descriptive statistics 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 • 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>	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	The general features of the plan <u>should</u> include (if appropriate): • sample and sampling technique • ethical guidelines • a procedure • 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	10						
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	The general features of the plan <u>should</u> include (if appropriate): • sample and sampling technique • ethical guidelines • a procedure • 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									
10(b)	For <u>one</u> piece of psychological knowledge on which your plan is based:									
10(b)(i)	Describe this psychological knowledge. Syllabus: 2.5.3 Brand awareness and recognition. Brand recognition in children including how children acquire an understanding of advertising via logo recognition, including a study, e.g. Fischer et al. (1991) Description: Brand recognition is the extent to which a consumer can correctly identify a product just by viewing the product's logo, tag line, packaging or advertising campaign. Some brands have become synonymous with their function: people 'Hoover' the carpet; have 'Kellog's' for breakfast, for example. NB: question specifies 'adult' syllabus is children. Candidates may write about the Fischer et al (1991) study (which is an 'e.g.' study). <table><tr><th>Marks</th><th>Description</th></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>	Marks	Description	3–4	The knowledge is appropriate. Relevant points are correctly described in good detail.	1–2	Basic points are identified with some elaboration and understanding. The answer lacks detail (a sentence or two).	0	No creditable response	4
Marks	Description									
3–4	The knowledge is appropriate. Relevant points are correctly described in good detail.									
1–2	Basic points are identified with some elaboration and understanding. The answer lacks detail (a sentence or two).									
0	No creditable response									

Question	Answer	Marks								
10(b)(ii)	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><th>Marks</th><th>Description</th></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></table> Example: As I outlined in (b)(i) brand recognition is the extent to which a consumer can correctly identify a product just by viewing the product's logo, therefore the correct identification of a brand would be the dependent variable which I outlined in (a).	Marks	Description	2	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.	1	Basic answer that identifies a feature	0	No creditable response	4
Marks	Description									
2	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.									
1	Basic answer that identifies a feature									
0	No creditable response									
10(c)(i)	Explain <u>one</u> reason for your choice of directional or non-directional hypothesis. Candidates should 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								

Question	Answer	Marks
10(c)(ii)	Explain <u>one</u> strength of your choice of type of experiment. Candidates should use the choice of experiment stated in (a). Award 2 marks: strength is given and applied to the plan Award 1 mark: strength is given without being applied to the plan Example - laboratory experiments have high levels of control, so the DV is more likely to be caused by the IV (1 mark) example from part (a) of plan (2 marks) - field experiment perhaps more difficult to control but possible to have high levels of ecological validity (1 mark) example from part (a) of plan (2 marks)	2
10(c)(iii)	Explain <u>one</u> reason for your choice of descriptive statistics. Candidates should use the descriptive statistics 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 - descriptive statistics describe (summarise) data via mean, median, mode, range so outcomes can be easily identified (1 mark) related to study (2 marks) - descriptive statistics describe (summarise) data via a visual display bar chart, histogram, scattergraph (1 mark) related to study (2 marks).	2

Question	Answer	Marks		
11(a)	Plan a study using an interview to investigate unrealistic optimism in adults about health beliefs. Your plan must include details about: • question format • interview format. 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 • 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>	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	The general features of the plan <u>should</u> include (if appropriate): • sample and sampling technique • ethical guidelines • a procedure • 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	10
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	The general features of the plan <u>should</u> include (if appropriate): • sample and sampling technique • ethical guidelines • a procedure • 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			

Question	Answer	Marks								
11(b)	For <u>one</u> piece of psychological knowledge on which your plan is based:									
11(b)(i)	Describe this psychological knowledge. Syllabus: 3.5.3 Individual factors in changing health beliefs. unrealistic optimism: reason for disregarding positive health advice, including a study, e.g. Weinstein (1980). Description: unrealistic optimism or optimistic bias is a reason why many people continue to smoke cigarettes even though they cause lung and many other cancers – people falsely believe that it won't happen to them. Another term for this is 'illusion of invulnerability' and it is the reason why the Titanic sank in 1912. The captain thought that the ship would never sink. Although it is an 'e.g.' study, candidates may include the Weinstein (1980) study. Weinstein (1980) Study 1, 258 college students estimated how much their own chances were of experiencing 42 events (18 positive and 23 negative events). Overall, the participants rated their own chances to be above average for positive events and below average for negative events supporting the main hypothesis. Study 2, using 120 female college students, tested the idea that people are unrealistically optimistic because they focus on factors that improve their own chances but fail to realise that other people are just the same. When these participants realised they were the same, unrealistic optimism decreased but was not eliminated altogether. <table><tr><th>Marks</th><th>Description</th></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>	Marks	Description	3–4	The knowledge is appropriate. Relevant points are correctly described in good detail.	1–2	Basic points are identified with some elaboration and understanding. The answer lacks detail (a sentence or two).	0	No creditable response	4
Marks	Description									
3–4	The knowledge is appropriate. Relevant points are correctly described in good detail.									
1–2	Basic points are identified with some elaboration and understanding. The answer lacks detail (a sentence or two).									
0	No creditable response									

Question	Answer	Marks								
11(b)(ii)	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><th>Marks</th><th>Description</th></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></table> Example: A structured interview could be used with closed questions asking (for example) on a scale of 1 (highly likely) to 5 (highly unlikely) what are your chances of living longer than the average age of death in this country? This question is based on the psychological knowledge of unrealistic optimism I outlined in (b)(i).	Marks	Description	2	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.	1	Basic answer that identifies a feature	0	No creditable response	4
Marks	Description									
2	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.									
1	Basic answer that identifies a feature									
0	No creditable response									
11(c)(i)	Explain <u>one</u> reason for your choice of question format. Candidates must use the question format 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: open questions: - the data gathered may be ‘rich’ and detailed (1 mark) related to plan (2 marks) - it allows participants the opportunity to express a range of feelings and explain their behaviour (1 mark) related to plan (2 marks) closed questions: - answers are in the same format for all participants (1 mark) related to plan (2 marks) - answers may be easy to score/analyse (1 mark) related to plan (2 marks) - relatively large numbers of participants can be questioned relatively quickly (1 mark) related to plan (2 marks)	2								

Question	Answer	Marks
11(c)(ii)	Explain <u>one</u> weakness of your choice of question format. Candidates must use the question format 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: Open questions: • participants may not wish to express a range of feelings or explain their behaviour (1 mark) related to plan (2 marks). • Answers may be more difficult to analyse because it is qualitative data with no scale/fixed answers (1 mark) related to plan (2 marks) Closed questions: • participants have no opportunity to express a range of feelings or explain their behaviour stating 'yes' for example, does not allow participants to explain how they feel (1 mark) related to plan (2 marks) • participants can only respond with the answer options they have which might be forced (4-point scale) or limited (5-point scale) (1 mark) related to plan (2 marks)	2
11(c)(iii)	Explain <u>one</u> reason for your choice of interview format. Candidates should use the interview format 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 structured interview was used so all participants received the same questions in the same order (1 mark) related to plan (2 marks) • a semi structured interview was used so although there were fixed questions there was also the option to ask questions that might arise during the interview (1 mark) related to plan (2 marks) • an unstructured interview was used so participants had the flexibility so answer in any way they pleased (1 mark) related to plan (2 marks)	2

Question	Answer	Marks								
12(a)	Plan a study using an interview to investigate whether praise or recognition is the most effective way to motivate workers in an organisation. Your plan must include details about: • sample and sampling technique • interview format. 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 • 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>	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	The general features of the plan <u>should</u> include (if appropriate): • sample and sampling technique • ethical guidelines • a procedure • 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	10						
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	The general features of the plan <u>should</u> include (if appropriate): • sample and sampling technique • ethical guidelines • a procedure • 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									
12(b)	For <u>one</u> piece of psychological knowledge on which your plan is based:									
12(b)(i)	Describe this psychological knowledge. Syllabus: 4.1.3 Motivators at work. intrinsic motivators at work: non-monetary rewards including praise, respect, recognition, empowerment and a sense of belonging. Description: Praise – a simple ‘well done’ can often be all a worker needs to keep them happy and motivated. Praise needs to be done fairly and consistently to be effective. Praise can be a few words from a manager to a worker. Recognition – results from working hard, showing responsibility, leadership, organisation and other skills the organisation values. Recognition can be in the form of an award, a certificate. Candidates may distinguish between monetary reward systems (extrinsic motivation) and non-monetary rewards (intrinsic motivation) <table><tr><th>Marks</th><th>Description</th></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>	Marks	Description	3–4	The knowledge is appropriate. Relevant points are correctly described in good detail.	1–2	Basic points are identified with some elaboration and understanding. The answer lacks detail (a sentence or two).	0	No creditable response	4
Marks	Description									
3–4	The knowledge is appropriate. Relevant points are correctly described in good detail.									
1–2	Basic points are identified with some elaboration and understanding. The answer lacks detail (a sentence or two).									
0	No creditable response									

Question	Answer	Marks								
12(b)(ii)	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><th>Marks</th><th>Description</th></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></table> Example: The interview format I outlined in (a) is unstructured, asking for example ‘How do you feel when a manager praises your work?’. This links to the psychological knowledge I outlined in (b)(i) about praise as an intrinsic motivator. I would also ask ‘How do you feel when a manager presents you with a small award for your work?’, which links to the psychological knowledge I outlined in (b)(i) about recognition as an intrinsic motivator.	Marks	Description	2	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.	1	Basic answer that identifies a feature	0	No creditable response	4
Marks	Description									
2	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.									
1	Basic answer that identifies a feature									
0	No creditable response									
12(c)(i)	Explain <u>one</u> reason for your choice of sampling technique. Candidates should 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).	2								

Question	Answer	Marks
12(c)(ii)	Explain <u>one</u> weakness of your choice of sampling technique. Candidates should use the sampling technique stated in (a). 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 interview format. Candidates should use the interview format 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 structured interview was used so all participants received the same questions in the same order (1 mark) related to plan (2 marks) • a semi structured interview was used so although there were fixed questions there was also the option to ask questions that might arise during the interview (1 mark) related to plan (2 marks) • an unstructured interview was used so participants had the flexibility so answer in any way they pleased (1 mark) related to plan (2 marks)	2

Cambridge International AS & A Level

PSYCHOLOGY**9990/43**

Paper 4 Specialist Options: Application and Research Methods

October/November 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 October/November 2025 series for most Cambridge IGCSE, Cambridge International A and AS Level components, and some Cambridge O Level components.

This document consists of **35** printed pages.

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.

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.

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.

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
BOD	Benefit of doubt
REP	Repetition
	Answer unclear
NOM	Used in the 10-mark planning Q in Section B to indicate wrong method
E	Used in the 10-mark planning Q in Section B to indicate ethics included
NAQ	Not answering question
SEEN	
	Supportive point
B	Used in the 10-mark planning Q in Section B to indicate bullet point included
NE	Used in the 10-mark planning Q in Section B to indicate no ethics included

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

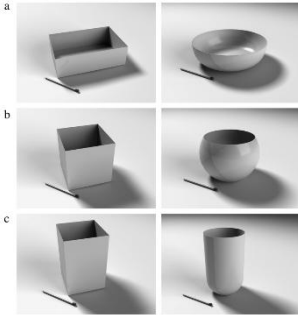
Level	Description	Marks
1	The response: • may not use the method required by the question. • may not answer the question set. • identifies a few general and/or method-specific features and detail is limited. • shows very little understanding and the plan would be impossible to replicate. • makes a limited 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	The key study by Grant et al. (2008) treated gambling disorder in one of two double-blind placebo-controlled trials, in a university and treatment centres.	
1(a)(i)	Identify the drug used in each trial. Syllabus: 1.3.3 Key study on treating gambling disorder with drugs and placebo: Grant et al. (2008). Marks: Award 1 mark for each correct answer. Definitive answers: • Nalmefene (1 mark) • Naltrexone (1 mark) NB: trial does not need to be specified (e.g. trial 1 = nalmefene) NB: 0 marks for opioid antagonists.	2
1(a)(ii)	State the duration of each trial. Marks: Award 1 mark for each correct answer. Definitive answers: • 16 weeks (1 mark) • 18 weeks (1 mark) NB: trial does not need to be specified (e.g. trial 1 = 16 weeks)	2
1(b)	Suggest why placebo-controlled trials were used in this study. 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>): • to find out whether a drug treatment works better than a substance that does not have an active drug in it (1 mark) • to act as a control group or baseline to compare 'with drug' and 'without drug' conditions (1 mark) • to provide a baseline for a comparison between drug and non-drug conditions (1 mark) • without it, it might lead to false conclusions about the effect of the drug (1 mark) • without a placebo group, participants would know that they are receiving an active drug and this alone might result in a change in behaviour (1 mark) • related to study: inclusion of nalmefene/naltrexone; treatment of gambling disorder (+1 mark). NB: answer must refer to placebo for 2 marks.	2

Question	Answer	Marks
1(c)	Explain <u>one</u> strength and <u>one</u> weakness of using multiple locations within this study. 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: • participants might be different, perhaps making the study more representative/generalisable (1 mark) such as those living close to a university compared to those living near a treatment centre (2 marks) • a different location may provide a different outcome (1 mark) a study conducted in a laboratory (University of Minnesota) compared to a real-life setting (out-patient psychiatric treatment centres) (2 marks) Weaknesses: • participants in one location might have different characteristics from participants in a different location (1 mark) in this study participants were either at a University (attended there/students) rather than those at treatment centres (non-students) (2 marks) • different locations might attract different types of personalities which might affect behaviour/results (1 mark) people perhaps might participate at a university rather than a treatment centre/might participate because it is a treatment centre (2 marks)	4

Question	Answer	Marks
2(a)	Outline <u>one</u> case study of schizophrenia. Syllabus 1.1.1 diagnostic criteria (ICD-11) of schizophrenia, including symptoms (positive and negative). A case study of schizophrenia. Marks: Award 2 marks for a detailed outline. Award 1 mark for a partial outline. Answers may include (other appropriate responses to be credited). Three case studies by Aneja (2018) Case 1: A 14-year-old boy, educated up to class 6, belonging to a family of middle socioeconomic status and residing in an urban area was brought with complaints of academic decline since 3 years and hearing voices for the past 2 years. Father was aggressive. Mother and child lived with grandparents. Child aggressive/violent outbursts. Early onset schizophrenia Case 2: An 11-year-old boy, educated up to class 3, belonging to a rural family of lower socioeconomic status was brought with complaints of academic decline since 2 years, repetition of acts, irritability since a year, and adoption of abnormal postures since 6 months. Case 3: A 7-year-old girl, student of second class, belonging to a high socioeconomic status family living in an urban locality was brought with complaints of academic decline, irritability, and abnormal behaviour for the past 9 months. NB: any case study can be included; beware of anecdotal examples.	2
2(b)	Suggest why the data gathered from a person with schizophrenia might <u>not</u> be reliable. Marks: Award 2 marks for an appropriate suggestion and applied to question with detail/elaboration/example. Award 1 mark for an appropriate suggestion identified but not applied. Answers may include (other appropriate responses to be credited): • the person may not be consistent in responses (1 mark) • the person may not be able to remember what was said on previous occasions (1 mark) • the person may be taking regular medication which may mask what they really think or feel (1 mark) • the person may report new things ‘voices in their head’ are telling them (1 mark) • (+ 1 mark) and so any data gathered would not be reliable/ with appropriate example NB: ‘consistency’ needs to be included for 2 marks.	2

Question	Answer	Marks
2(c)	Explain <u>two</u> strengths of using case studies to collect data on schizophrenia. Marks: up to 2 marks for each strength. 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 case study can be used as a pilot study (1 mark) • a participant is studied as part of their everyday life (1 mark), • a single participant can be studied in depth/detail (1 mark) • a participant may present a unique set of symptoms (1 mark) • strengths applied to individual candidate example (+1 mark)	4

Question	Answer	Marks
3	From the key study by Becker et al. (2011) on food package design, a pre-test on packaging shape was conducted.	
3(a)	Describe the procedure of the pre-test on packaging shape.  Fig. 1. Shape variants (prototypes) Syllabus: 2.4.1 Key study on food package design and taste perceptions: Becker et al. (2011). Marks: Award 1 mark for each different point up to 4 max. Definitive answers: • twenty participants evaluated three pairs of product variants (see Fig. 1) representing the intended shape manipulation • using a 12-item potency construct • comprising the items impressive, sour, mild (reverse coded), weak (reverse coded), humble (reverse coded), pure, bland (reverse coded), bitter, compliant (reverse coded), spicy, rebellious, independent] • participants indicated (using 7-point rating scales ranging from 'not at all' to 'very much so') to what extent they considered these items descriptive of the shape variants. • the six different cups were presented in random order.	4

Question	Answer	Marks
3(b)	Suggest <u>one</u> effect on the results if the pre-test had <u>not</u> been conducted. 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>): - there could be a lack of validity (1 mark) because the researchers could use a design which would be artificial such testing a 'square' yogurt container (or any of the other five container designs) (2 marks) - time could be wasted studying something that was not realistic or would not be used in real-life (1 mark) such as a square yogurt container for example (2 marks)	2
3(c)	Explain <u>one</u> strength and <u>one</u> weakness of conducting studies on package shape for food in the entrance hall of a supermarket. 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: - the location is congruent with the study (1 mark) people are in a supermarket which sells food so the location is ideal for testing food packaging (2 marks) - using opportunity sampling means that participants are readily available to the researchers (1 mark) with 'participants coming to them' ideal for package design testing (2 marks) Weaknesses: - people are in the supermarket to shop and may not fully concentrate on participating in a study (1 mark) which may result in the findings on package shape not being as valid as they otherwise might be (2 marks) - conducting a study, a field experiment, means that not all extraneous variables are controlled (1 mark) conducting a study at the entrance to a supermarket means that there may be many uncontrollable situational variables such as other shoppers (2 marks)	4

Question	Answer	Marks
4(a)	Explain what is meant by the term 'retail atmospherics'. Syllabus: 2.1.3 retail atmospherics. 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>): - retail atmospherics are the controllable characteristics of retail space which entice customers to enter the store, shop, and point of purchase (1 mark) examples include: - store interior design such as grid, freeform and racetrack layouts (+1 mark) - store exterior design such as window displays and landscaping (+1 mark) - music which can be interior, e.g. North et al (2003) or it can be background - odour as shown by Chebat and Michon (2003)	2
4(b)	Suggest the effect <u>one</u> retail atmospheric might have on shopper ambience. 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>): - a retail atmospheric (e.g. background music) might cause arousal or pleasure (PAD) (1 mark) which would attract a certain type of customer to the store (2 marks). - the same retail atmospheric might cause the opposite effect (1 mark) and put people off entering a particular store (2 marks) - credit any retail atmospheric which is outlined (1 mark) which is related to the PAD or emotion-cognition model (2 marks)	2
4(c)	Explain <u>two</u> strengths of studying retail atmospherics for the seller (retailer). Marks: up to 2 marks for each strength: 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 - what is known about retail atmospherics can be used to attract customers and increase sales (1 mark) e.g. playing classical music led diners to purchase more coffee (2 marks) - applying what is known will create feelings of arousal and customers will visit the store even without making a purchase (1 mark) if the store is known to play X type of music (or 'Z' smell) people who like that type of music/smell (e.g. fresh bread) are more likely to go to that store (2 marks)	4

Question	Answer	Marks
5	The key study by Bridge et al. (1988) on reducing stress during medical treatment divided the female participants into two experimental groups and one control group.	
5(a)(i)	Outline the procedure followed by the ‘relaxation plus imagery’ experimental group. Syllabus 3.4.3 Managing stress: Key study on relaxation and imagery in reducing stress during medical treatment: Bridge et al. (1988). Marks: Award 1 mark for correct point about relaxation (common to all groups); award 1 mark for imagery (specific to this group) Definitive answer: • both treatment groups (relaxation and relaxation plus imagery) were taught a relaxation technique which by a process of direct concentration focuses sensory awareness on a series of individual muscle groups. • patients were also given instructions for diaphragmatic breathing, which slows respiration, induces a calmer state, and reduces tension. • <i>in addition to the breathing and relaxation, each patient in the relaxation plus imagery group was taught to imagine a peaceful scene of her own choice as a means of enhancing the relaxation.</i>	2
5(a)(ii)	Outline the experimental design that was used in this study. Marks: Award 1 mark for each correct point (2 marks max) Definitive answer: Independent measures design (1 mark) relaxation only, and relaxation and imagery participated in only one condition (2 marks).	2
5(b)	Suggest <u>one</u> problem if a different experimental design was used in this study, other than the one you outlined in part (a)(ii). 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>): If a repeated measures design was used: • knowledge of one technique would influence the next (1 mark) making either the relaxation or relaxation plus imagery redundant (2 marks). • treatment would go on for too long, potentially leading to attrition (1 mark) and so the sample would be too small to determine the effectiveness of either the relaxation/ relaxation plus imagery technique (2 marks)	2

Question	Answer	Marks
5(c)	Explain <u>one</u> strength and <u>one</u> weakness of using a sample of female participants in studies on reducing stress. 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: - stress reduction techniques can be tailored specifically for females rather than a generic 'one size fits all' (1 mark) particularly useful if the technique is designed to help reduce their anxiety about their illness (2 marks) - stress reduction techniques can be tailored specifically for females with 'female illnesses' (1 mark) in this study the participants had breast cancer (2 marks). Weakness - rather than one technique fits all, it would mean that a range of different techniques would be needed (1 mark) that are appropriate for men (or even different age ranges/ different types of illness (2 marks). - The female/female illness techniques would not generalise depending on the illness (1 mark) men can get breast cancer; but not ovarian (females do not get prostate cancer) (2 marks).	4

Question	Answer	Marks
6(a)	Outline the methodology used in <u>one</u> study on improving adherence in children (e.g. Chaney et al. 2004). Syllabus 3.2.3 improving adherence. Improving adherence in children including a study, e.g. Chaney et al. (2004). Marks: Award for each correct feature (2 marks max) Answers may include (other appropriate responses to be credited): From the Chaney et al. study: - a matched questionnaire-based survey (1 mark) - two interviews in the child/parents' home conducted by the same person (1 mark) telephone interviews (at random) to check on medication from previous day (1 mark) NB: this is an 'e.g.' study so any appropriate alternative can receive credit. Watt et al's 'funhaler' is a likely alternative (old syllabus).	2

Question	Answer	Marks
6(b)	Suggest <u>one</u> ethical guideline that applies to the children in the study you outlined in part (a). 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>): • children cannot give informed consent (1 mark) in the Chaney et al. study the children were aged 1.5 to 6 years (2 marks) • children do not understand they have the right to withdraw, or will do so, even if it is explained to them (1 mark) which would apply to anyone under 16 years undergoing trials for a new adherence technique (2 marks)	2
6(c)	Explain <u>two</u> weaknesses of using parents/guardians to collect data about improving adherence in the children in their care. Do not refer to ethics in your answer. 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: • a parent may not know whether the child is taking medication or not (they think they do, but ...) (1 mark) which means that any data gathered on using the funhaler (or whatever example used) is not valid (2 marks) • a parent may want their child to be seen in a good light/ a parent may not be honest in their answers (1 mark) and so they may say that the child is using the (e.g. funhaler) when the child is not (2 marks)	4

Question	Answer	Marks
7	From the key study by Cuadrado et al. (2008) on women's access to managerial positions:	
7(a)(i)	State <u>two</u> features of the sample of participants used in this study. Syllabus 4.2.2 Key study on leadership style and gender: Cuadrado et al. (2008) Marks: Award 1 mark for each correct feature (max 2). Definitive answer • 136 participants • psychology students • from the Universidad Nacional de Educación a Distancia (National Open University of Spain), from the entire Spanish territory, of whom • 53% were women 47% were men • women mean age 27 years, SD = 6.6 and men mean age 29 years, SD = 6.8.	2

Question	Answer	Marks
7(a)(ii)	Outline what each participant was asked to do after reading the narrative (the description of the supervisor's behaviour). Marks: Award 2 marks for detail of either the first or second aspect. Award 1 mark for a partial outline. Most likely answer: quote: - participants were asked to evaluate a supervisor (1 mark) (male or female, depending on the experimental condition) of the service, who was occupying that position for a trial period (2 marks) - in the narrative, after reading the description of the supervisor's behavior, they were asked to collaborate in the evaluation process (1 mark) by means of an anonymous questionnaire in order to facilitate making decisions about the candidates (2 marks). Alternatively (quote) - a list of 14 adjectives (7 positive and 7 negative). Participants rated the degree to which they thought these adjectives were applicable to the supervisor, using a 7-point Likert-type scale, ranging from 1 (never) to 7 (always). The positive adjectives were: competent, intelligent, loyal, honest, clever, responsible, and optimistic. The negative adjectives were: careless, forgetful, discouraging, harmful for the team, bossy, snobbish, and dishonest. - supervisor's leadership capacity. a 7-point Likert-type scale, ranging from 1 (totally negative/totally disagree) to 7 (totally positive/totally agree). The items presented were: How would you evaluate X's general leadership capacity? X is a competent supervisor. How would you evaluate X's capacities and aptitudes as a supervisor? How would you evaluate X as a leader or supervisor? - Leadership effectiveness of the supervisor. A measure of 5 items with a 7-point Likert-type scale ranging from 1 (totally negative/totally disagree) to 7 (totally positive/totally agree). The items presented were: How would you evaluate X's general achievement as a supervisor? X is an effective manager. X knows how to manage people effectively. X has sufficient capacity to be considered a successful leader. X does not perform his/her work as supervisor well enough.	2
7(b)	Suggest why Cuadrado et al. used four different versions of the same narrative. 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>): - to act as a baseline/control for comparison with the IV (1 mark) about women and managerial positions (2 marks). - to mix each variable with each other to test combinations (1 mark) 2 (Male- stereotypical vs. Female-stereotypical leadership style) × 2 (Male vs. Female leader) (2 marks)	2

Question	Answer	Marks
7(c)	Explain <u>two</u> strengths of using an experiment to investigate women's access to managerial positions in this study. 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: - the DV can be precisely measured (1 mark) using rating scales (7-point scale) for leadership capacity and effectiveness and gathering quantitative data (2 marks) - all situational variables can be controlled (1 mark) such as temperature, lighting, etc so focus on task being measured, the 14 adjectives, is not influenced by any other factor (2 marks) - the procedure is standardised (1 mark) all participants receive the same instructions, the narrative about the leader's behaviour (2 marks)	4

Question	Answer	Marks
8	Walton's quality of working life (QWL) has an evaluation scale with eight conditions, including a fair and appropriate salary.	
8(a)	State <u>two</u> question items from the scale that relate to a fair and appropriate salary. Syllabus: 4.5.2 Measuring job-satisfaction. Walton's quality of working life (QWL) including eight conditions and QWL evaluation scale. Marks: Award 1 mark for each correct answer. Definitive answers (<u>other appropriate responses to be credited</u>): - How satisfied are you with your salary (remuneration)? - How satisfied are you with your salary, if you compare it to your colleagues' salary? - How satisfied are you with the recompenses and the participation in results that you receive from the company - How satisfied are you with the extra benefits (alimentation, transport, doctor, dentist, etc.) that your company offers to you?	2

Question	Answer	Marks
8(b)	Suggest how the reliability of the QWL evaluation scale could be tested. 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>): • test-retest where the test is repeated at a later date (1 mark). The QWL could be given to the same participant on different occasions (2 marks) • the split-half method involves splitting the test into two and administering each half of the test to the same person. (1 mark) The QWL scores from the two halves should show a strong correlation (2 marks).	2
8(c)	Explain <u>two</u> weaknesses of the question items from the QWL evaluation scale. 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 • many words used in the questionnaire are very complex and may not be understood by workers (1 mark) such as salubrity, alimentation, recompenses, polyvalence (2 marks) • many questions need thinking about to gain understanding before answering (1 mark) ranges such as 'How satisfied are you with the recompense and the participation in results that you receive from the company?' (2 marks) • workers may become bored answering it; give up; write any answer near the end (1 mark) it has 35 questions which is too long (2 marks)	4

Question	Answer	Marks		
9(a)	Plan a study using a structured observation to investigate the effectiveness of imaginal desensitisation for treating gambling disorder. • naturalistic or controlled observation • 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: • structured or unstructured • covert or overt • controlled or naturalistic • participant or non-participant • number of observers (inter-rater reliability) • behavioural categories • could include: event or time sampling </td><td> The general features of the plan <u>should</u> include (if appropriate): • sample and sampling technique • ethical guidelines • a procedure • 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>	The specific features of the plan <u>should</u> include: • structured or unstructured • covert or overt • controlled or naturalistic • participant or non-participant • number of observers (inter-rater reliability) • behavioural categories • could include: event or time sampling	The general features of the plan <u>should</u> include (if appropriate): • sample and sampling technique • ethical guidelines • a procedure • 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	10
The specific features of the plan <u>should</u> include: • structured or unstructured • covert or overt • controlled or naturalistic • participant or non-participant • number of observers (inter-rater reliability) • behavioural categories • could include: event or time sampling	The general features of the plan <u>should</u> include (if appropriate): • sample and sampling technique • ethical guidelines • a procedure • 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			

Question	Answer	Marks								
9(b)	For <u>one</u> piece of psychological knowledge on which your plan is based:									
9(b)(i)	Describe this psychological knowledge. Syllabus: 1.3.3 Treatment and management of impulse control disorders. imaginal desensitisation, including a study, e.g. Blaszczynski and Nower (2003) Description: Imaginal desensitisation involves teaching progressive muscle relaxation and then the person <i>visualises</i> themselves being exposed to the situation. This triggers the drive to carry out the impulsive behaviour and the aim is to reduce the strength of the drive. Blaszcznski and Nower (2003) found this technique was particularly effective with gamblers. There are six steps in a typical treatment sequence: Initiating the urge, planning to follow through on the urge, arriving at the venue, getting arousal and excitement with the behaviour, having ‘second thoughts’ about the behaviour and decreasing the attractiveness of the behaviour. Blaszcznski and Nower (2003) conducted initial sessions with the therapist then conducted at home. 0 marks for covert sensitisation. <table><tr><th>Marks</th><th>Description</th></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>	Marks	Description	3–4	The knowledge is appropriate. Relevant points are correctly described in good detail.	1–2	Basic points are identified with some elaboration and understanding. The answer lacks detail (a sentence or two).	0	No creditable response	4
Marks	Description									
3–4	The knowledge is appropriate. Relevant points are correctly described in good detail.									
1–2	Basic points are identified with some elaboration and understanding. The answer lacks detail (a sentence or two).									
0	No creditable response									

Question	Answer	Marks								
9(b)(ii)	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><th>Marks</th><th>Description</th></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></table> Example: In (b)(i) I explained how gamblers are taught progressive muscle relaxation with sessions specific to their type of gambling. Therefore in (a) I planned that after many sessions a structured observation can be conducted in a naturalistic setting to see whether they still engage in their specific type of gambling.	Marks	Description	2	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.	1	Basic answer that identifies a feature	0	No creditable response	4
Marks	Description									
2	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.									
1	Basic answer that identifies a feature									
0	No creditable response									
9(c)(i)	Explain <u>one</u> reason for your choice of naturalistic observation or controlled observation. Candidates should use the choice of interpretation/scoring 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: naturalistic observation because - it is conducted in a real-world setting (1 mark) such as a gambling casino where gambling behaviour could be covertly observed (2 marks) - behaviours are likely to be normal (high in ecological validity) (1 mark) because the participant will not know they are being observed in the casino and so effectiveness of treatment assessed (2 marks) - a full range of casino atmospherics are present (1 mark) so the effectiveness of the treatment in a real-world setting of a gambling casino is tested (2 marks) controlled observation because - it is conducted in a laboratory setting (1 mark) and so all variables such as the type of gambling, such as cards or machines, can be controlled (2 marks) - it is a 'safe' environment where the patient knows they are being observed (1 mark) and that they cannot lose (or win) real money (2 marks)	2								

Question	Answer	Marks
9(c)(ii)	Explain <u>one</u> strength of using a structured observation in your study. Candidates should use the choice of covert observation stated in (a). Award 2 marks if an appropriate strength is given and justified. Award 1 mark if an appropriate strength is given but not justified. Example • a structured observation uses behaviour checklists so observers know exactly what they are looking for, it is more reliable than unstructured observation (1 mark) related to study (2 marks) • a structured observation uses behaviour checklists two observers can independently record behaviour and their reliability checked (1 mark) related to study (2 marks) • a structured observation can be used as a technique to measure the DV in an experiment (1 mark) related to study (2 marks)	2
9(c)(iii)	Explain <u>one</u> reason for your choice of type(s) of data. Candidates should 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

Question	Answer	Marks
----------	--------	-------

Question	Answer	Marks		
10(a)	Plan a study using a field experiment to investigate the effect on spending when playing classical music in different types of restaurant. 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 • 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>	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	The general features of the plan <u>should</u> include (if appropriate): • sample and sampling technique • ethical guidelines • a procedure • 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	10
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	The general features of the plan <u>should</u> include (if appropriate): • sample and sampling technique • ethical guidelines • a procedure • 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			

Question	Answer	Marks								
10(b)	For <u>one</u> piece of psychological knowledge on which your plan is based:									
10(b)(i)	Describe this psychological knowledge. Syllabus: 2.1.2 Key study on musical style and restaurant customers' spending: North et al. (2003). Description: North et al. (2003) field experiment in a restaurant to investigate the effect of type of music on the amount of money spent. Conducted over 3 weeks so each of the three conditions of the IV (classical music, pop music and no music) tested on different days. 393 people ate in the restaurant over 3 weeks and listened to only one type of music (independent measures). The DV was actual spend in GBP broken down into starters, main course, dessert, coffee, bar drinks, and wine. Total spend also calculated. Most money was spent with classical music £32.50, pop music £29.46 and no music £29.73. There was very little difference in the amount spent on main course; greatest difference was spending on coffee: classical £1.06, pop £0.80 and no music £0.53. <table><tr><th>Marks</th><th>Description</th></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>	Marks	Description	3–4	The knowledge is appropriate. Relevant points are correctly described in good detail.	1–2	Basic points are identified with some elaboration and understanding. The answer lacks detail (a sentence or two).	0	No creditable response	4
Marks	Description									
3–4	The knowledge is appropriate. Relevant points are correctly described in good detail.									
1–2	Basic points are identified with some elaboration and understanding. The answer lacks detail (a sentence or two).									
0	No creditable response									
10(b)(ii)	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><th>Marks</th><th>Description</th></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></table> Example: Classical music can be played in an upmarket restaurant (similar to the one in the North et al. study) and also played in a 'fast-food' restaurant (the IV). Like North et al. the amount of money spent on individual products can be measured (the DV).	Marks	Description	2	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.	1	Basic answer that identifies a feature	0	No creditable response	4
Marks	Description									
2	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.									
1	Basic answer that identifies a feature									
0	No creditable response									

Question	Answer	Marks
10(c)(i)	Explain <u>one</u> reason for your choice of controls. Candidates should use the controls stated in (a). Award 2 marks: appropriate reason is given and applied to the plan Award 1 mark: appropriate 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 should 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 should 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) NB: 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. NB: 0 marks for a null hypothesis.	2

Question	Answer	Marks		
11(a)	Plan an experiment to investigate the effectiveness of biofeedback to manage stress in university students. Your plan must include details about: • experimental design • dependent variable. 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 • 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>	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	The general features of the plan <u>should</u> include (if appropriate): • sample and sampling technique • ethical guidelines • a procedure • 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	10
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	The general features of the plan <u>should</u> include (if appropriate): • sample and sampling technique • ethical guidelines • a procedure • 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			

Question	Answer	Marks								
11(b)	For <u>one</u> piece of psychological knowledge on which your plan is based:									
11(b)(i)	Describe this psychological knowledge. Syllabus: 3.4.3 Managing stress: psychological therapy: biofeedback, including a study e.g. Budzynski et al. (1969) Description: Budzynski and Stoyva (1969) conducted an experiment using biofeedback on 15 people suffering headaches. The biofeedback device could provide auditory feedback with the pitch of the tone determined by the level of muscle tension. Group 1: 'feedback' tone reflected level of muscle tension; group 2: received irrelevant constant low tone feedback; group 3 a no-feedback 'silent' group. The feedback group showed a 50% decrease, the no feedback group a 24% decline and the irrelevant feedback group a 28% <i>increase</i> in forehead muscle tension. As the syllabus defines Budzynski and Stoyva (1969) as an 'e.g. study' any alternative research on biofeedback can receive credit. <table><tr><th>Marks</th><th>Description</th></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>	Marks	Description	3–4	The knowledge is appropriate. Relevant points are correctly described in good detail.	1–2	Basic points are identified with some elaboration and understanding. The answer lacks detail (a sentence or two).	0	No creditable response	4
Marks	Description									
3–4	The knowledge is appropriate. Relevant points are correctly described in good detail.									
1–2	Basic points are identified with some elaboration and understanding. The answer lacks detail (a sentence or two).									
0	No creditable response									
11(b)(ii)	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><th>Marks</th><th>Description</th></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></table> Example: Budzynski and Stoyva (1969) used a device like a GSR (galvanic skin response) so the same device was used in my study. University students experiencing stress would undergo at least ten sessions of biofeedback and other would have no biofeedback (like Budzynski and Stoyva). The results from the two groups could be compared.	Marks	Description	2	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.	1	Basic answer that identifies a feature	0	No creditable response	4
Marks	Description									
2	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.									
1	Basic answer that identifies a feature									
0	No creditable response									

Question	Answer	Marks
11(c)(i)	Explain <u>one</u> reason for your choice of experimental design. Candidates should 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 (only definition provided). Example - 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)	2
11(c)(ii)	Explain <u>one</u> weakness of your choice of type of experiment. Candidates should 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 - laboratory experiments have low ecological validity and behaviour may be different from that in real life (1 mark) example from part (a) of plan (2 marks) - field experiments are perhaps more difficult to control but possible to have high levels of ecological validity (1 mark) example from part (a) of plan (2 marks)	2
11(c)(iii)	Explain <u>one</u> reason for your choice of dependent variable. Candidates should use the dependent variable stated in (a). Award 2 marks if an appropriate reason is given and justified. Explanation of why the specific DV was chosen (1 mark) related to study i.e. actual DV (2 marks) Award 1 mark if an appropriate reason is given but not justified. Example: - level of tone emitted [or number on scale shown] from the GSR (galvanic skin response) (1 mark) was chosen because this is a recognised measure of stress and is commonly used by practitioners (2 marks) - result of a saliva sample on a scale 0–10 (1 mark) because this is what was used by Evans and Wener, 2007 in their study of stress on a commuter train (2 marks) - chosen because it provides quantitative data allowing comparisons and descriptive statistics to be displayed (1 mark)	2

Question	Answer	Marks				
12(a)	Plan a study using a questionnaire to investigate levels of job satisfaction following a job enlargement. Your plan must include details about: • questionnaire technique • question format. 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:</td><td>The general features of the plan <u>should</u> include (if appropriate):</td></tr><tr><td> • technique (paper/pencil, online, postal) • format (open and/or closed) • examples of questions • question scoring/interpretation • number of questions </td><td> • sample and sampling technique • ethical guidelines • a procedure • 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>	The specific features of the plan <u>should</u> include:	The general features of the plan <u>should</u> include (if appropriate):	• technique (paper/pencil, online, postal) • format (open and/or closed) • examples of questions • question scoring/interpretation • number of questions	• sample and sampling technique • ethical guidelines • a procedure • 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	10
The specific features of the plan <u>should</u> include:	The general features of the plan <u>should</u> include (if appropriate):					
• technique (paper/pencil, online, postal) • format (open and/or closed) • examples of questions • question scoring/interpretation • number of questions	• sample and sampling technique • ethical guidelines • a procedure • 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					

Question	Answer	Marks								
12(b)	For <u>one</u> piece of psychological knowledge on which your plan is based:									
12(b)(i)	Describe this psychological knowledge. Syllabus: 4.5.1 Theories of job satisfaction. techniques of job design: enrichment, rotation and enlargement, e.g. Belias and Sklikas, (2013). Description: Job enlargement ‘transforms the jobs to include more and/or different tasks’. The aim is to stimulate the interest of employee in the job, namely increasing job attraction, through the differentiated and various tasks that the employee performs in his/her job. Consequently, the objective of job enlargement is to design jobs where the needs of employees meet the interests of the organisation. Horizontal enlargement: the degree to which a job contains many tasks’ This is achieved through adding more tasks to the existing tasks performed by an employee at the same skill level. The goal is to reduce the level of specialisation and boredom of work, to reduce the number of difficult tasks, and finally to lead towards the development of new employee skills. Vertical enlargement is ‘the degree to which the employees decide how the task is to be done’. The goal is to enhance the status and the self-fulfillment needs of the employees, while it gives the employees the opportunity to take part in the organisation, the planning and the control of tasks. <table><tr><th>Marks</th><th>Description</th></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>	Marks	Description	3–4	The knowledge is appropriate. Relevant points are correctly described in good detail.	1–2	Basic points are identified with some elaboration and understanding. The answer lacks detail (a sentence or two).	0	No creditable response	4
Marks	Description									
3–4	The knowledge is appropriate. Relevant points are correctly described in good detail.									
1–2	Basic points are identified with some elaboration and understanding. The answer lacks detail (a sentence or two).									
0	No creditable response									

Question	Answer	Marks								
12(b)(ii)	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><th>Marks</th><th>Description</th></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></table> Example: In (b)(i) I explained that one aim of horizontal enlargement was to reduce boredom. Therefore, in (a) I used this knowledge to plan that after having their job enlarged horizontally, so each worker is responsible for more tasks, they will be given a questionnaire with closed questions, asking (for example) ‘to what extent has the change in tasks stimulated your interest in the job?’ using a 5-point scale.	Marks	Description	2	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.	1	Basic answer that identifies a feature	0	No creditable response	4
Marks	Description									
2	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.									
1	Basic answer that identifies a feature									
0	No creditable response									

Question	Answer	Marks
12(c)(i)	Explain <u>one</u> reason for your choice of questionnaire technique. Candidates should use the choice of question format stated in (a). Award 2 marks if an appropriate reason is given and justified. Award 1 mark if an appropriate reason is given but not justified. Paper/pencil • because they are face-to-face perhaps participants are more likely to complete the questionnaire and perhaps be more honest in their answers (1 mark) related to plan (2 marks). • paper/pencil because the researcher is there at the time watching and waiting and so the environment is perhaps more likely to be controlled if done in a laboratory with students for example (1 mark) related to plan (2 marks). Online • online because the sample size can be much larger and potentially much more diverse than paper/pencil or face-to-face which is probably done in a relatively restricted place (in street, laboratory) (1 mark) related to plan (2 marks). • online because there is no researcher waiting, watching or influencing the person in any way. The participant is more likely to be honest in their responses (1 mark) related to plan (2 marks). Postal • postal because the sample size can be much larger and potentially much more diverse than paper/pencil or face-to-face which is probably done in in a relatively restricted place (in street, laboratory) (1 mark) related to plan (2 marks). • postal because there is no researcher waiting, watching or influencing the person in any way. The participant is more likely to be honest in their responses (1 mark) related to plan (2 marks).	2
12(c)(ii)	Explain <u>one</u> weakness of your choice of questionnaire technique. Candidates should use the question format in (c)(i). Award 2 marks if weakness is given and applied to the plan Award 1 mark if weakness is given without being applied to the plan Example • online means that the participant is perhaps more likely to drop-out without completing the questionnaire (right to withdraw) (1 mark) related to plan (2 marks). • paper-pencil/face-to-face means that the participant may be more likely to respond to demand characteristics and 'say what they think the researcher wants them to say' (1 mark) related to plan (2 marks) • postal means that the questionnaire can be treated like 'junk-mail' and thrown away; it could be started and then forgotten; it may not be returned because that may incur costs for the participant (1 mark) related to plan (2 marks).	2

Question	Answer	Marks
12(c)(iii)	Explain <u>one</u> reason for your choice of question format. Candidates must use the question format 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: open questions: - the data gathered may be ‘rich’ and detailed (1 mark) related to plan (2 marks) - it allows participants the opportunity to express a range of feelings and explain their behaviour (1 mark) related to plan (2 marks) closed questions: - answers are in the same format for all participants (1 mark) related to plan (2 marks) - answers may be easy to score/analyse (1 mark) related to plan (2 marks) - relatively large numbers of participants can be questioned relatively quickly (1 mark) related to plan (2 marks)	2