

Cambridge International AS & A Level

PSYCHOLOGY**9990/42**

Paper 4 Specialist Options: Application and Research Methods

May/June 2026**MARK SCHEME**Maximum Mark: 60

Published

This mark scheme contains the instructions and marking guidance that our examiners used to mark candidate responses for this component.

Before they start marking, examiners complete a standardisation process. They review a range of candidate responses and discuss the mark scheme in detail to agree which answers can and cannot be accepted. Examiners award marks where it is clear that candidate responses have met the requirements of the mark scheme. These requirements may vary between different components or different versions of the same component, depending on the exact requirements of the question and the candidate responses seen during the standardisation process.

Sometimes, our mark schemes may allow marks to be awarded to responses which contain elements that are factually incorrect or for content not covered by the syllabus. We do this in response to the demands of a specific question to support candidates and make sure that our assessments are fair. However, these allowances should not be used as a guide for teaching and learning.

We cannot discuss the mark scheme with schools, and we recommend that schools read the mark scheme together with the assessment material and the Principal Examiner Report for Teachers.

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

General marking principles

All examiners must apply these marking principles when marking candidate responses.

1	Examiners must award marks for each response in line with: - the specific content defined in the mark scheme - the specific skills defined in the mark scheme or in the level descriptions - the standard of response required as exemplified by the standardisation scripts.
2	Examiners must award whole marks (not half marks, or other fractions).
3	Examiners must award marks positively . This means that: - marks are not deducted for errors or omissions - marks are awarded for correct/valid answers as defined in the mark scheme and also for other valid answers which go beyond the scope of the syllabus and mark scheme referring to your team leader as appropriate - the quality of spelling, punctuation and grammar are judged only when the mark scheme indicates that these features are specifically assessed in the question. However, the meaning of all responses must be unambiguous.
4	Examiners must consistently apply the requirements of the mark scheme and any rules for what to do when candidates have not followed instructions correctly.
5	Examiners must use the full range of marks defined in the mark scheme, unless limited by the quality of the candidate responses seen.
6	Examiners must award marks according to the mark scheme and must not award marks with grade thresholds or grade descriptions in mind.

**Social Sciences-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)	Describe the procedure for the participants receiving telephone administered behaviour therapy. Syllabus: 1.5.3 Treatment and management of obsessive-compulsive disorder. Key study on treatment of obsessive-compulsive disorder using telephone administered cognitive behavioural therapy (CBT): Lovell et al. (2006). Marks: Award 4 marks for a detailed description decreasing to 1 mark for a partial description. Could be 1 mark for any of four points below. Definitive answers: • Use of psychometric tests BDI, Y-BOCS, CSQ (satisfaction questionnaire) to determine levels of OCD. • One one-hour face-to-face session at the beginning (to establish baseline) and at the end to assess progress. • First treatment same as control group to reduce anxiety/fear through gradual, repeated exposure to anxiety-producing situations. • Eight weekly telephone calls (duration is 8 weeks plus before and after meeting). • Each telephone call lasting for up to 30 minutes. • Weekly homework sheets completed (sent by post). • Therapist reviewed sheets, devised weekly targets, use of co-therapist (relative/friend). • Therapist manuals, fortnightly supervision and training days every four months. • 1, 3 and 6 month follow up. Note: 0 marks for procedure of the face-to-face group.	4
1(b)	Suggest <u>one</u> reason why a therapist might <u>not</u> find 'telephone therapy' satisfactory. Marks: Award 2 marks for an appropriate suggestion stated and applied to study with detail/elaboration/example. Award 1 mark for reason identified but not applied. Answers may include (<u>other appropriate responses to be credited</u>): • The therapist does not see the person face-to face (1 mark) and so cannot use non-verbals to help assess how the patient is progressing with the 'phone administered therapy (+ 1 mark). • Talking on the telephone is much less personal than seeing them face-to-face (1 mark) like a business/company call centre rather than a therapist giving therapy (+ 1 mark). • Technical issues such as time lag, cut-off, poor internet connection, etc. (1 mark) so the therapist cannot conduct a reasonable therapy session / misses information etc. (+ 1 mark). Note: 0 marks for <i>patient</i> not finding it satisfactory.	2

Question	Answer	Marks
1(c)	Explain <u>two</u> strengths of using telephone administered behaviour therapy to treat obsessive-compulsive disorder. 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 the following (<u>other appropriate responses to be credited</u>). Strengths: • An interview is with a person themselves, so they know about their needs (1 mark). • They can answer questions about themselves and progress with the therapy (1 mark). • Using a telephone means that a potentially representative sample can be contacted (1 mark) so the testing of a diverse sample of participants can be investigated (+ 1 mark). • Using a telephone reduces travelling which may be over a long distance and costly (1 mark) and the therapy can be just as successful as face-to-face (+ 1 mark). • Increases access for patients who cannot attend clinic appointments (1 mark). • Can be conducted 'out of hours', such as in the evening (1 mark). • Can be conducted 'in the home' of both patient and therapist (1 mark). • Time saving, less time for the therapist (30 mins rather than 1 hour), saving 40% of therapist time (+ 1 mark). • Patient receives homework sheets whereas face-to-face do not (1 mark).	4

Question	Answer	Marks
2(a)	Outline <u>one</u> type of delusion. Syllabus 1.1.1 Diagnostic criteria for schizophrenia. Types of delusions focusing on investigating delusions using virtual reality (exemplified by the following key study, Freeman et al. (2003)). Marks: Award 1 mark for identification. Award 2 marks for a detailed outline. Answers may include (<u>other appropriate responses to be credited</u>): • Persecutory: being watched (spied upon), followed, tricked, drugged, etc. by others who intend harm. • Grandiose/grandeur: a belief that they have an unrecognised skill, talent, knowledge or status. The person may see themselves as exceptional in some way (e.g. having superhuman powers or abilities). • Reference: belief that situations or events have personal significance (meaning), such as they are being given a sign about how to behave, what is going to happen in the future, or the belief that a television programme is talking about them. • Erotomaniac: a belief that another person, usually of higher social status is in love with them.	2

Question	Answer	Marks
2(b)	Suggest <u>one</u> way that delusions could be investigated, other than using open questions. Marks: Award 2 marks for an appropriate suggestion stated and applied to study with detail/elaboration/example. Award 1 mark for an appropriate suggestion identified but not applied. Answers may include (<u>other appropriate responses to be credited</u>): • Observation: covert or overt; structured; non-participant, natural – or any combination of these (1 mark) over a period of time to see how behaviour (dependent on type of delusion) might change (+ 1 mark). • Case study of one person (1 mark) to discover what behaviours are 'normal' and what behaviours may be 'delusional' (+ 1 mark). • Questionnaire with closed questions and fixed answer choices (1 mark) to ask the person directly about the nature of their delusions (+ 1 mark). • Interview (format/technique) (1 mark) to ask the person directly about the nature of their delusions (+ 1 mark). • Psychometric tests (1 mark) such as PSYRATS (Psychotic Symptom Rating Scale), PDI (Peters delusions Inventory), CDBS (Conviction of Delusional Beliefs Scale). Note: 0 marks for any open question. 0 marks for Brief Symptom Inventory (BSI).	2
2(c)	Explain <u>two</u> weaknesses of using open questions to investigate the delusions people experience. 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 the following (<u>other appropriate responses to be credited</u>). Weaknesses: • The person may not be able to answer questions / the person may not be able to describe their psychological state (1 mark) if they have delusions (+ 1 mark). • The person may lie* because they might be embarrassed (1 mark) if they want to hide their illness/delusion e.g. about being 'superwoman' (+ 1 mark). • There might be researcher bias in interpretation of answers if open questions used (1 mark) so incorrect measure and implication for treatment of delusion disorder (+ 1 mark). Note: 0 marks for 'social desirability', 'can lie'* or similar identified. Need reason/effect/impact for 1 mark.	4

Question	Answer	Marks
3	From the key study by North et al. (2003) on musical style and restaurant customers' spending:	
3(a)	Identify <u>four</u> features of the music that were consistent throughout the study. Syllabus: 2.1.2 Sound and consumer behaviour. Key study on musical style and restaurant customers' spending: North et al. (2003). Marks: Award 1 mark for each correct identification. Definitive answers: • same duration (two 76-minute CDs) • played at a constant background volume • played on a continuous random program • played on the restaurant's usual CD system • music played on the CDs was the same (classical and pop) • individual pieces identified (e.g. Vivaldi/4 seasons and Britney Spears/Crazy can be 2 marks) • music played on six different days over 3 weeks • always played from 7pm.	4
3(b)	Suggest <u>one</u> dependent variable that could be used to measure the effect of different types of music on the ambience of a restaurant. Note: answers can include 'measure' rather than specific DV. Marks: Award 2 marks for an appropriate suggestion stated and applied to study with detail/elaboration/example. Award 1 mark for an appropriate suggestion identified but not applied. Answers may include (<u>other appropriate responses to be credited</u>): • the number of times or frequency the person/family returns to the restaurant (1 mark) • positive comments made on exit from the restaurant (1 mark) • positive comments made on social media (1 mark) • amount of money given in tips because people feel good (1 mark) • any explanation or detail to support measure, e.g. ambient feature (+ 1). Note: 0 marks for amount spent on food and drinks which is paying the bill, not measuring ambience. Note: must be a reference to measuring ambience (more than the word itself).	2

Question	Answer	Marks
3(c)	Explain <u>two</u> weaknesses of using a field experiment to investigate musical style and restaurant customers' spending. 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 the following (<u>other appropriate responses to be credited</u>). Weaknesses: • A field experiment may have many variables that are more difficult to control than a laboratory experiment (1 mark), such as in a real-life restaurant (+ 1 mark). • Isolating one variable to study (i.e. the IV) when many other variables are controlled may not be appropriate (1 mark) because it would reduce the ecological validity of a real restaurant (+ 1 mark). • Often participants do not know they are taking part in a study which may raise ethical issues, i.e. no informed consent (1 mark). In this study by North et al. participants are unaware of the study; they are just at a restaurant (+ 1 mark). • A field experiment is usually conducted in one location which may not generalise to other locations (1 mark), such as in this study (Market Bosworth, a small affluent town in England) (+ 1 mark). Note: 'field experiments have uncontrolled variables' = 0 (many controls in this key study).	4

Question	Answer	Marks
4(a)	Explain what is meant by the term 'post-purchase cognitive dissonance', using an example. Syllabus: 2.4.3 Buying the product. Post-purchase cognitive dissonance including factors that can increase dissonance and ways to reduce dissonance, including a study, e.g. Nordvall (2014). Marks: Award 1 marks for outline. Award 1 mark for example. Answers may include (<u>other appropriate responses to be credited</u>): • Post-purchase dissonance is (i) a feeling of anxiety, regret, discomfort or uneasiness that a customer may experience after making a purchase (1 mark) (ii) when buying choice contrasts with their beliefs (1 mark). • A person sees a pair of shoes in a shop. They are beautiful, fit perfectly and they are exactly what the person was looking for. But they are very expensive. The person buys them. Walking from the shop the person starts to think about the amount of money spent and has doubts. They are just shoes, perhaps they may have been less expensive in another shop. The person has post-decision-dissonance (+ 1 mark). Note: credit any appropriate example (which can be brief).	2

Question	Answer	Marks
4(b)	Suggest <u>one</u> way in which post-purchase cognitive dissonance could be reduced by the person selling the 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 the following (<u>other appropriate responses to be credited</u>). Sellers can highlight any positive emotions associated with choosing that product (1 mark). Using direct marketing after the purchase helps to reinforce the consumer's choice and create an even more positive brand association for future purchases (1 mark). For example (all + 1 mark, or can be 2 marks with detail): • Offer detailed positive information about the product to help the person explore more about how good it is. • Add a complimentary item (buy 'x' at half price/have this for free). • Focus on the appearance of the product and the quality of the product. Leave the customer in no doubt that the product is special for them. • Set delivery expectation / offer seamless communication about delivery. • Offer a warranty, exchange or after-sales service. • Offer refund options or a product return policy (money back guarantee). • Give examples of other customers who are satisfied (social proof). Note: 'social proof' alone = 0 NAQ (copy actions of others; if they do it, it must be okay).	2

Question	Answer	Marks
4(c)	Explain <u>one</u> strength and <u>one</u> weakness of using closed questions to investigate the experience of post-purchase cognitive dissonance. 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 the following (<u>other appropriate responses to be credited</u>). Strengths: • Data is quantitative and can be used for comparisons (1 mark); the extent of dissonance in each person can be measured (+ 1 mark). • Participants can only answer using the pre-determined answers (1 mark) allowing each person to be directly compared for post-purchase cognitive dissonance (+ 1 mark). Weaknesses: • A limited choice of responses might restrict responses (1 mark); the right questions might not be asked because using the same for everyone does not allow for individual differences or circumstances when purchasing (+ 1 mark). • Participants might not be able to express how they feel or explain their responses (1 mark) when their post-purchase cognitive dissonance is unique to them (+ 1 mark). Note: question is about closed questions, not how a participant answers (0 for social desirability).	4

Question	Answer	Marks
5	From the key study by Shoshani and Steinmetz (2014) on using positive psychology in schools to improve mental health:	
5(a)	Outline how this study used both repeated measures and independent measures experimental designs. Syllabus: 3.5.3 Individual factors in changing health beliefs. Key study on using positive psychology in schools to improve mental health: Shoshani and Steinmetz (2014). Marks: 2 marks for ‘repeated’ and 2 marks for ‘independent’. Marks: Award 2 marks for a detailed outline. Award 1 mark for a partial outline. Definitive answers (from the study): • Repeated: measures taken before and after intervention (1 mark); before measure Sept 2010, then end of school year (June 2011) and then later follow-ups (+ 1 mark) OR any test done twice such as BSI, RSE, GS-ES, SWLS, LOT-R (+ 1 mark). Note: measures were taken on four occasions from both experimental and control group. • Independent: intervention group was compared to wait-list control group (1 mark). Intervention group (teachers were trained then gave lessons to pupils). Wait-list continued schooling as normal (+ 1 mark) OR 537 in intervention group and 501 in wait-list group (+ 1 mark).	4
5(b)	Suggest <u>one</u> reason why it was important for this study to use a longitudinal design. Marks: Award 2 marks for an appropriate suggestion stated and applied to study with detail/elaboration/example. Award 1 mark for an appropriate suggestion identified but not applied. Answers may include (<u>other appropriate responses to be credited</u>): • The positive psychology programme was designed to be taught for one year (1 mark) and so could only be tested after one year (+ 1 mark). • Before and after data had to be gathered and the programme taught as part of the school curriculum (1 mark) and all this could not be done on the same day (+ 1 mark). • The effect of the positive psychology programme needed time to pass to see if it was truly effective (1 mark), so data had to be gathered over a much longer period of time (+ 1 mark).	2

Question	Answer	Marks
5(c)	Explain <u>one</u> reason why generalisations can be made from this study and <u>one</u> reason why generalisations cannot be made from this study. Marks: Up to 2 marks for each ‘can generalise’ and up to 2 marks for each ‘cannot generalise’. Award 2 marks for an appropriate can/cannot generalise stated and applied as required by the question with detail/elaboration/example. Award 1 mark for an appropriate can/cannot generalise stated but not applied. Answers may include the following (<u>other appropriate responses to be credited</u>). Can be made: - Positive psychology ‘health’ promotion programmes can be applied anywhere in the world (1 mark); in this instance the study was conducted in Israel, but it could have been conducted anywhere (+ 1 mark). - Children are educated in schools across the world (1 mark); in this study the children were of school age 11–14 years (+ 1 mark). Cannot be made: - Just because the finding from one study shows a programme ‘works’, it does not mean it will ‘work’ everywhere (1 mark). Positive psychology may apply to some countries, such as Israel, but not automatically to all (+ 1 mark). - The study was conducted in one country, Israel, and there might be something specific to Israeli children (1 mark) that is not present in children of other countries (+ 1 mark). Note: same argument cannot be made ‘for’ and ‘against’. Note: a large sample size does not increase generalisability (needs representative sample).	4

Question	Answer	Marks
6(a)	Outline what is meant by acute pain, using an example. Syllabus: 3.3.1 Types and theories of pain functions of pain; types of pain: acute and chronic pain. Syllabus: 3.3.3. Managing and controlling pain biological treatment: biochemical. Marks: Award 1 marks for outline. Award 1 mark for example. Answers may include the following (<u>other appropriate responses to be credited</u>). Outline: - Acute pain is when, after a relatively brief time period (less than 6 months), the pain subsides, the damage heals and the individual returns to a pre-damage state. Example: - A broken bone; a cut finger; a toothache - Other appropriate responses to be credited.	2
6(b)	Suggest <u>one</u> way that a biochemical treatment can be used to treat acute pain. 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>): - By taking a pill, i.e. a peripherally acting analgesic i.e. nonsteroidal Anti-Inflammatory Drugs (NSAIDs) (1 mark). - Aspirin, paracetamol (any brand name) 'over the counter' medicines for headache, etc. (+ 1 mark). - By rubbing into the site of the pain/potential pain, i.e. a local anaesthetic (1 mark). - By injecting into the site of the pain/potential pain, i.e. a local anaesthetic (1 mark) such as injection into local area (for stitching a wound, extracting a tooth) (+ 1 mark). - By injecting/giving gas i.e. a general anaesthetic (1 mark) which works directly on the nervous system, such as morphine resulting in 'unconsciousness' in the patient (+ 1 mark).	2

Question	Answer	Marks
6(c)	Explain <u>two</u> weaknesses of using biochemical treatments to treat acute pain. 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 the following (<u>other appropriate responses to be credited</u>). Weaknesses: • Peripherally acting analgesics are short-term (up to 30 mins) (1 mark) so either need to be retaken or the cause of pain removed (having a tooth removed for example (+ 1 mark)). • Drugs such as NSAIDs are effective, but have side effects (1 mark) e.g. ibuprofen causes stomach irritation (+ 1 mark). • Drugs such as ibuprofen, aspirin, paracetamol, etc. can be bought 'over the counter', which makes them easy to obtain (1 mark) but this means that they are not powerful pain killers and may not ease the pain (+ 1 mark).	4

Question	Answer	Marks
7	From the key study on applying self-determination theory to motivational rewards by Landry et al. (2019):	
7(a)	Identify <u>four</u> features of the sample of participants used in this study. Syllabus: 4.1.3 Motivators at work. 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 1 mark for each correct identification. Definitive answers: • all students (at Canadian University) • all doing 'Introduction to Organisational Behaviour' (Psychology) • 123 participants (65 and 58 in each group) • 40% male, 60% female • mean age 23 years (actual ages not stated, so 0 marks for age range) • all spoke French. Note: how recruited = 0; all Canadian = 0 (we don't know this).	4
7(b)	Suggest <u>one</u> location where this study could be conducted that would improve application to everyday life. 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 the following (<u>other appropriate responses to be credited</u>). Note: study was conducted in a laboratory. • In a factory (1 mark) • In an office (1 mark) • In a store/shop/supermarket (1 mark) • Which would be in the normal working environment for many workers and where motivational rewards (autonomy supporting or controlling) (+ 1 mark) OR rewards are intrinsic or extrinsic (= 1 mark).	2

Question	Answer	Marks
7(c)	Explain <u>two</u> weaknesses with the sample of participants used in this study. 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 the following (<u>other appropriate responses to be credited</u>). Weaknesses: • Sample was too small (1 mark); there were only 123 participants (+ 1 mark). • Sample sex/gender of participants was imbalanced (1 mark); there were 40% males (+ 1 mark). • Sample was restricted to students (1 mark); they were all student volunteers studying at university (+ 1 mark). • Sample was restricted to location (1 mark); at a university in Canada (+ 1 mark). • Sample was restricted to age (1 mark); mean age was 23 years (+ 1 mark). • Sample was unrepresentative (1 mark) of people in the workforce (+ 1 mark).	4

Question	Answer	Marks
8(a)	Identify <u>two</u> types of bullying behaviour at work. Syllabus: 4.3.3 Conflict at work. Bullying at work; types, phases and causes, including a study, e.g. Einarsen (1999). Marks: Award 1 mark for each correct identification. Answers may include the following (<u>other appropriate responses to be credited</u>). Einarsen (1999) believes there are five types of bullying behaviour at work: • Work-related bullying which may involve a change of work tasks or making tasks difficult to perform • Social isolation • Personal attacks (or attacks on private life) by ridicule, insulting remarks, or gossip • Verbal threats including criticism, being yelled at or humiliated in public • Physical violence (or threats of violence). Note: 'verbal' and 'physical' bullying = 1 mark (needs specific terms for 2). Note: 0 marks for <i>causes</i> (why the bully bullies) or <i>phases</i> (1 aggressive behaviour to 4 trauma).	2

Question	Answer	Marks
8(b)	Suggest <u>one</u> way that bullying behaviour at work could be investigated, other than by using a face-to-face interview. 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>): • Use a telephone interview so the person is not face-to-face with the interviewer (1 mark) and the person may feel they are able to talk more freely about bullying if they are 'anonymous' (+ 1 mark). • Use an observation, perhaps with CCTV (1 mark) to record the different types of bullying (+ 1 mark). • Use a questionnaire (format/technique) (1 mark) where the person bullied can express their thoughts and feelings (+ 1 mark).	2
8(c)	Explain <u>one</u> strength and <u>one</u> weakness of using a face-to-face interview to investigate bullying at work. 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 the following (<u>other appropriate responses to be credited</u>). Strengths: • Face-to-face interviews are more 'personal'; the interviewer can smile and give positive feedback to the person being interviewed (1 mark) which might help the victim to relax and 'tell all' about what has happened to them (+ 1 mark). • Face-to-face interviews allow researchers to observe non-verbal communication by the interviewee (e.g. gesture, posture, facial expression) (1 mark) which might help the interviewer decide whether the answers given about bullying are honest or not (+ 1 mark). Weaknesses: • Face-to-face interviews are more 'personal', and the interviewee might feel like they are being 'interrogated', feel uncomfortable, and disclose less (credit social desirability) (1 mark); the victim may not identify the bully because they fear more or worse bullying by the bully if the bully is identified (+ 1 mark). • Face-to-face interviews means that the victim is identified by management, the bullying complaint is official and there is no going back (1 mark) and if management do not stop the bully, the victim may suffer more (+ 1 mark).	4

Question	Answer	Marks		
9(a)	Plan an <u>experiment</u> with a <u>longitudinal design</u> to investigate the effectiveness of exposure and response prevention (ERP) for obsessive-compulsive disorder (OCD). Your plan must include details about: frequency/interval of testing type 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: - type of experiment - independent variable - dependent variable - controls - choice of experimental design longitudinal studies/design (tests/tasks, scoring, frequency/interval, contacting participants) - other appropriate features. </td><td> The general features of the plan <u>should</u> include (if appropriate): - sample and sampling technique - ethical guidelines - a procedure - the location type(s) of data, analysis of data, use of descriptive statistics - an aim or hypothesis (directional or non-directional)/ null hypothesis - steps for making the study valid and reliable. </td></tr></table>	The specific features of the plan <u>should</u> include: - type of experiment - independent variable - dependent variable - controls - choice of experimental design longitudinal studies/design (tests/tasks, scoring, frequency/interval, contacting participants) - other appropriate features.	The general features of the plan <u>should</u> include (if appropriate): - sample and sampling technique - ethical guidelines - a procedure - the location type(s) of data, analysis of data, use of descriptive statistics - an aim or hypothesis (directional or non-directional)/ null hypothesis - steps for making the study valid and reliable.	10
The specific features of the plan <u>should</u> include: - type of experiment - independent variable - dependent variable - controls - choice of experimental design longitudinal studies/design (tests/tasks, scoring, frequency/interval, contacting participants) - other appropriate features.	The general features of the plan <u>should</u> include (if appropriate): - sample and sampling technique - ethical guidelines - a procedure - the location type(s) of data, analysis of data, use of descriptive statistics - an aim or hypothesis (directional or non-directional)/ null hypothesis - steps for making the study valid and reliable.			

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: 1.5.3 Treatment and management of obsessive-compulsive disorder. Psychological therapies including exposure and response prevention (ERP), including a study, e.g. Lehmkuhl et al. (2008). Answers are likely to include (<u>other appropriate responses to be credited</u>): Exposure and response prevention (ERP) exposure involves facing or confronting a feared stimuli and/or situations repeatedly until the fear associated with them subsides, and response prevention means to not carry out the compulsive, avoidant, or escape behaviour. Lehmkuhl et al. (2008) (an e.g. study) used ERP to treat a 12-year-old boy, Jason who experienced contamination fears (e.g. doorknobs, library books, etc.). Jason reported significant anxiety when prevented from completing his rituals (e.g. hand washing, using hand sanitiser). Treatment was to touch items in the hospital such as elevator buttons and door handles until his anxiety was much reduced. When touching, coping statements such as ‘I know that nothing bad will happen’ were repeated. Note: candidates may write about other treatments e.g. CBT (Lovell et al.) as a comparison. <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
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Question	Answer	Marks										
9(b)(ii)	Explain how you used <u>two</u> features of this psychological knowledge to plan your experiment. Candidates should explain how the psychological knowledge described in 9(b)(i) has informed their plan in part 9(a). For each feature: <table><tr><th>Marks</th><th>Description</th></tr><tr><td>2</td><td>Suitable answer that relates to a feature and explains how the feature was used, expanded or modified to make it appropriate to the plan. The knowledge has clearly been applied to the plan.</td></tr><tr><td>1</td><td>Basic answer that identifies a feature.</td></tr><tr><td>0</td><td>No creditable response.</td></tr><tr><td>Note</td><td>1 mark for explanation of follow on from 9(b)(i); 1 mark for explanation appearing in 9(a) × 2.</td></tr></table> Example: (i) procedure of ERP that the chosen participants in the plan go through (details in 9(b)(i)); (ii) reference to the study by Lehmkuhl et al. (2008) and the case study of Jason because type of OCD and treatments can be used for the plan, OR (iii) details of a comparison treatment such as CBT (details in 9(b)(i) above).	Marks	Description	2	Suitable answer that relates to 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.	Note	1 mark for explanation of follow on from 9(b)(i) ; 1 mark for explanation appearing in 9(a) × 2.	4
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1	Basic answer that identifies a feature.											
0	No creditable response.											
Note	1 mark for explanation of follow on from 9(b)(i) ; 1 mark for explanation appearing in 9(a) × 2.											
9(c)(i)	Explain <u>one</u> reason for your choice of frequency/interval of testing. Candidates must use the frequency/interval of testing stated in 9(a). Award 2 marks: reason is given and applied to the plan. Award 1 mark: reason is given without being applied to the plan. Examples: • The testing intervals (two or more) are identified (e.g. before and after; before, during and after; immediately after (exit); and after 6 months/1 year) and were chosen because [reason given] (1 mark) named testing intervals from plan (+ 1 mark). • Plan might include measures such as Y-BOCS or MOCI (for OCD).	2										
9(c)(ii)	Explain <u>one</u> weakness with your choice of frequency/interval of testing. Candidates must use the frequency/interval of testing stated in 9(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. Examples: • Testing immediately after the trial/study has ended may not be effective because the ‘intervention’ has not had time to be effective (1 mark); related to study (+ 1 mark). • Testing after 6 months (1 year?) may be too long after the intervention and participants may have forgotten, or the effect worn off (1 mark); related to study (+ 1 mark).	2										

Question	Answer	Marks
9(c)(iii)	Explain <u>one</u> reason for your choice of type of data. Candidates must use the type(s) of data stated in 9(a). Award 2 marks: reason is given and applied to the plan. Award 1 mark: reason is given without being applied to the plan. Examples: - 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 (+ 1 mark). - Both quantitative and qualitative data can be gathered to provide 'best of both worlds' (1 mark); related to plan (+ 1 mark).	2

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

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: 2.4.3 buying the product. Deciding where to buy, including reasons for store choice and demographics such as age and gender, including a study, e.g. Sinha et al. (2002). Sinha et al. (2002) <i>Note this is an example study so an alternative may be used.</i> Reasons for visit: convenience, merchandise, ambience, service, referrals, previous patron. Types of stores included those selling groceries, clothing, books, music and cigarettes. 43 item Likert-style questionnaire as participants left various stores. Also asked three open questions with responses categorised into reasons (as above) for visiting store. Found: (i) males more likely to report convenience (40%) as a reason for store choice than females (30 per cent); (ii) males more likely to mention ambience; decisions made quickly, and less time spent in-store. (iii) Females more likely to report merchandise (40%) as a reason for store choice than males (30%); (iv) females more likely to mention previous patronage of the store; appeared to spend longer on the search stage of the decision-making process, considering alternatives. <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
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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 10(b)(i) has informed their plan in part 10(a). For each feature: <table><tr><th>Marks</th><th>Description</th></tr><tr><td>2</td><td>Suitable answer that relates to a feature and explains how the feature was used, expanded or modified to make it appropriate to the plan. The knowledge has clearly been applied to the plan.</td></tr><tr><td>1</td><td>Basic answer that identifies a feature.</td></tr><tr><td>0</td><td>No creditable response.</td></tr><tr><td>Note</td><td>1 mark for explanation of follow on from 10(b)(i); 1 mark for explanation appearing in 10(a) × 2.</td></tr></table> Example: Details from the study by Sinha et al. (or alternative study) such as <i>reasons</i> for visits (basis for fundamental interview question) and/or <i>types</i> of stores (details in 10(b)(i) above). Differences between males and females as reported by Sinha (see 10(b)(i) above), e.g. Sinha found males go for convenience (basis for interview question).	Marks	Description	2	Suitable answer that relates to 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.	Note	1 mark for explanation of follow on from 10(b)(i) ; 1 mark for explanation appearing in 10(a) × 2.	4
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Note	1 mark for explanation of follow on from 10(b)(i) ; 1 mark for explanation appearing in 10(a) × 2.											
10(c)(i)	Explain <u>one</u> reason for your choice of location for your study. Candidates must use the location stated in 10(a). Award 2 marks: reason is given and applied to the plan. Award 1 mark: reason is given without being applied to the plan. Examples: • Inside a store with reason (1 mark); related to plan (+ 1 mark) • Outside a store with reason (1 mark); related to plan (+ 1 mark) • In a laboratory with reason (1 mark); related to plan (+ 1 mark) • Other location with reason (1 mark); related to study (+ 1 mark).	2										
10(c)(ii)	Explain <u>one</u> weakness with your choice of location. Candidates must use the location stated in 10(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. Examples: • In a store there might be too many shoppers (crowding); related to study (+ 1 mark). • In a store there might be other extraneous variables such as lighting, store design etc. (1 mark); related to study (+ 1 mark). • Outside a store there might be extraneous variables, e.g. weather / temperature / people in a hurry (1 mark); related to study (+ 1 mark).	2										

Question	Answer	Marks
10(c)(iii)	Explain <u>one</u> reason for your choice of question format. Candidates must use the question format stated in 10(a). Award 2 marks: reason is given and applied to the plan. Award 1 mark: reason is given without being applied to the plan. Examples: Open questions: • The data gathered may be ‘rich’ and detailed (1 mark); related to plan (+ 1 mark). • Allows participants the opportunity to express a range of feelings and explain their behaviour (1 mark); related to plan (+ 1 mark). Closed questions: • Answers are in the same format for all participants (1 mark); related to plan (+ 1 mark). • Answers may be easy to score/analyse (1 mark); related to plan (+ 1 mark). • Relatively large numbers of participants can be questioned relatively quickly (1 mark); related to plan (+ 1 mark). Both closed and open: • Open and closed are used to gather both qualitative and quantitative data (1 mark); related to plan (+ 1 mark).	2

Question	Answer	Marks		
11(a)	Plan a study using a <u>telephone interview</u> to gather data about differences in the way that men and women describe pain. Your plan must include details about: • question format • analysis of data. Use Table A: AO2 Application to mark candidate responses to this question. Credit both general features and specific features of the plan. <table><tr><td> The specific features of the plan <u>should</u> include: • interview technique (telephone or face-to-face) • interview format (structured, unstructured, semi-structured) • question format (open and/or closed) • examples of questions • question scoring/interpretation • number of questions. </td><td> The general features of the plan <u>should</u> include (if appropriate): • sample and sampling technique • ethical guidelines • a procedure • the location • type 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 • the location • type of data, analysis of data, use of descriptive statistics • an aim or hypothesis (directional or non-directional)/null hypothesis • steps for making the study valid and reliable.	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 • the location • type of data, analysis of data, use of descriptive statistics • an aim or hypothesis (directional or non-directional)/null hypothesis • steps for making the study valid and reliable.			

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: 3.3.2 Measuring pain. Subjective measures including clinical interview. Answers are likely to include (other appropriate responses to be credited): Subjective measures: it is logical to ask a person in pain (in a clinical interview conducted by a practitioner) to describe their pain and find out all about it to help diagnose the cause of the pain. Note: psychometric measures and observations are not possible in a telephone interview. Types of pain: descriptions of acute and chronic pain likely along with examples of what is causing their pain. Questions from MPQ could be used, such as sensory questions (choose word to describe pain; what the pain feels like); affective (emotions and how pain makes them feel); evaluative (intensity of pain – words such as ‘mild’ to ‘excruciating’). <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		
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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 11(b)(i) has informed their plan in part 11(a). For each feature: <table><tr><th>Marks</th><th>Description</th></tr><tr><td>2</td><td>Suitable answer that relates to a feature and explains how the feature was used, expanded or modified to make it appropriate to the plan. The knowledge has clearly been applied to the plan.</td></tr><tr><td>1</td><td>Basic answer that identifies a feature.</td></tr><tr><td>0</td><td>No creditable response.</td></tr><tr><td>Note</td><td>1 mark for explanation of follow on from 11(b)(i); 1 mark for explanation appearing in 11(a) × 2.</td></tr></table> Examples: (i) subjective descriptions of acute and/or chronic pain (as in clinical interview), (ii) use of questions from the MPQ about ‘sensory’, ‘affective’ and ‘evaluative’ aspects of pain.	Marks	Description	2	Suitable answer that relates to 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.	Note	1 mark for explanation of follow on from 11(b)(i) ; 1 mark for explanation appearing in 11(a) × 2.	4
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Note	1 mark for explanation of follow on from 11(b)(i) ; 1 mark for explanation appearing in 11(a) × 2.											

Question	Answer	Marks
11(c)(i)	Explain <u>one</u> reason for your choice of question format. Candidates must use the question format stated in 11(a). Award 2 marks: reason is given and applied to the plan. Award 1 mark: reason is given without being applied to the plan. Examples: Open questions: • The data gathered may be ‘rich’ and detailed (1 mark); related to plan (+ 1 mark). • 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 (+ 1 mark). • 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 (+ 1 mark). Both closed and open: • Open and closed are used to gather both qualitative and quantitative data (1 mark); related to plan (+ 1 mark).	2
11(c)(ii)	Explain <u>one</u> strength of using a telephone interview in your study. Candidates must use the telephone interview stated in 11(a). Award 2 marks: strength is given and applied to the plan. Award 1 mark: strength is given without being applied to the plan. Examples: • Telephone because the interview will be short and to the point (1 mark); related to plan (+ 1 mark). • Telephone because a much wider sample can be obtained; because there is no travelling involved by either interviewer or interviewee (1 mark); related to plan (+ 1 mark). • Telephone because the interviewee is in their own surroundings (at home?) and may feel more comfortable/relaxed when being interviewed (1 mark); related to plan (+ 1 mark).	2

Question	Answer	Marks
11(c)(iii)	Explain <u>one</u> reason for the way you chose to analyse your data. Candidates must use the analysis of data stated in 11(a). Award 2 marks: reason is given and applied to the plan. Award 1 mark: reason is given without being applied to the plan. Examples: - As the data gathered is quantitative, the data can be analysed using descriptive statistics such as mean, median and mode (or scatter graph for correlation); related to study (+ 1 mark). - As the data gathered is qualitative, the data gathered can be presented to raters/judges who will independently categorise the words so conclusions can be drawn from the data (1 mark); related to study (+ 1 mark).	2

Question	Answer	Marks		
12(a)	Plan an <u>experiment</u> to investigate the effectiveness of performance monitoring to reduce social loafing in employees. Your plan must include details about: • controls • 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 • longitudinal studies/design (tests/tasks, scoring, frequency/interval, contacting participants) • other appropriate features. </td><td> The general features of the plan <u>should</u> include (if appropriate): • sample and sampling technique • ethical guidelines • a procedure • the location • type(s) of data, analysis of data, use of descriptive statistics • an aim or hypothesis (directional or non-directional)/null hypothesis • steps for making the study valid and reliable. </td></tr></table>	The specific features of the plan <u>should</u> include: • type of experiment • independent variable • dependent variable • controls • choice of experimental design • longitudinal studies/design (tests/tasks, scoring, frequency/interval, contacting participants) • other appropriate features.	The general features of the plan <u>should</u> include (if appropriate): • sample and sampling technique • ethical guidelines • a procedure • the location • type(s) of data, analysis of data, use of descriptive statistics • an aim or hypothesis (directional or non-directional)/null hypothesis • steps for making the study valid and reliable.	10
The specific features of the plan <u>should</u> include: • type of experiment • independent variable • dependent variable • controls • choice of experimental design • longitudinal studies/design (tests/tasks, scoring, frequency/interval, contacting participants) • other appropriate features.	The general features of the plan <u>should</u> include (if appropriate): • sample and sampling technique • ethical guidelines • a procedure • the location • type(s) of data, analysis of data, use of descriptive statistics • an aim or hypothesis (directional or non-directional)/null hypothesis • steps for making the study valid and reliable.			

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: 4.3.2 individual and group performance focusing on social facilitation and social loafing including definitions, drive theory and evaluation apprehension, social impact theory. Key study looking at concentration levels when being monitored: Claypoole and Szalma (2019). Focus on experiment 1, specifics of methodology for experiment 2 will not be needed. Answers are likely to include (<u>other appropriate responses to be credited</u>): Social facilitation is the improvement in performance on simple or well-learned tasks in the presence of others. Social inhibition is the decline in performance on complex or new tasks when being watched. Social loafing: people do not work as hard when in a group as when working alone. Social impact theory: the larger the group the more likely social loafing will occur. Claypoole and Szalma (2019) investigated electronic performance monitoring to see if it improved performance (and reduced social loafing). IV: EPM (webcam and video recorder) and no EPM. Independent measures design. DV: speed and accuracy to 20 critical signals in 24-minute period. <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
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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 experiment. Candidates should explain how the psychological knowledge described in 12(b)(i) has informed their plan in part 12(a). For each feature: <table><tr><th>Marks</th><th>Description</th></tr><tr><td>2</td><td>Suitable answer that relates to a feature and explains how the feature was used, expanded or modified to make it appropriate to the plan. The knowledge has clearly been applied to the plan.</td></tr><tr><td>1</td><td>Basic answer that identifies a feature.</td></tr><tr><td>0</td><td>No creditable response.</td></tr><tr><td>Note</td><td>1 mark for explanation of follow on from 12(b)(i); 1 mark for explanation appearing in 12(a) × 2.</td></tr></table> Examples: various combinations can be used; (a) performance monitoring (compared with control) so (i) use of procedure from Claypoole & Szalma’s study such as use of webcam and video recorder, (b) application of social inhibition/facilitation with performance of simple/well learned tasks versus complex/new tasks, so (ii) use of knowledge of facilitation and inhibition.	Marks	Description	2	Suitable answer that relates to 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.	Note	1 mark for explanation of follow on from 12(b)(i) ; 1 mark for explanation appearing in 12(a) × 2.	4
Marks	Description											
2	Suitable answer that relates to 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.											
Note	1 mark for explanation of follow on from 12(b)(i) ; 1 mark for explanation appearing in 12(a) × 2.											
12(c)(i)	Explain <u>one</u> reason for your choice of controls. Candidates must use the controls stated in 12(a). Award 2 marks: reason is given and applied to the plan. Award 1 mark: reason is given without being applied to the plan. Examples: • So that the study is valid; it is more likely that the DV has been caused by the IV (1 mark); applied to specific plan (+ 1 mark). • Situational variables are controlled, such as noise, temperature and lighting (1 mark); applied to specific plan (+ 1 mark).	2										
12(c)(ii)	Explain <u>one</u> weakness with your choice of type of experiment. Candidates must use the type of experiment stated in 12(a). Award 2 marks: weakness is given and applied to the plan. Award 1 mark: weakness is given without being applied to the plan. Examples: • Laboratory experiments have low ecological validity and behaviour may be different from that in real life (1 mark); example from part (a) of plan (+ 1 mark). • Field experiments are perhaps more difficult to control but it is possible to have high levels of ecological validity (1 mark); example from part (a) of plan (+ 1 mark).	2										

Question	Answer	Marks
12(c)(iii)	Explain <u>one</u> reason for your choice of dependent variable. Candidates must use the dependent stated in 12(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. operationalised DV (+ 1 mark). Award 1 mark if an appropriate reason is given but DV not operationalised. Examples: • It is to measure the effect or outcome of a study (1 mark). • It provides evidence to accept or reject a hypothesis (1 mark). • DV of specific plan in part (a) (should be fully operationalised) (+ 1 mark).	2