



Cambridge International AS & A Level

PSYCHOLOGY

9990/41

Paper 4 Specialist Options: Applications

May/June 2020

MARK SCHEME

Maximum Mark: 60

Published

Students did not sit exam papers in the June 2020 series due to the Covid-19 global pandemic.

This mark scheme is published to support teachers and students and should be read together with the question paper. It shows the requirements of the exam. The answer column of the mark scheme shows the proposed basis on which Examiners would award marks for this exam. Where appropriate, this column also provides the most likely acceptable alternative responses expected from students. Examiners usually review the mark scheme after they have seen student responses and update the mark scheme if appropriate. In the June series, Examiners were unable to consider the acceptability of alternative responses, as there were no student responses to consider.

Mark schemes should usually be read together with the Principal Examiner Report for Teachers. However, because students did not sit exam papers, there is no Principal Examiner Report for Teachers for the June 2020 series.

Cambridge International will not enter into discussions about these mark schemes.

Cambridge International is publishing the mark schemes for the June 2020 series for most Cambridge IGCSE™ and Cambridge International A & AS Level components, and some Cambridge O Level components.

This document consists of **22** 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 descriptors 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.

Section A: Stimulus (Generic response descriptor)		
(a)	0–2	1 mark for basic answer e.g. identification. 1 mark for elaboration/example.
(b)	0–4	Question always requires two ‘things’ 1 mark basic answer. 2 marks elaboration. Max 2 marks if only ‘one’ is answered.
(c)	0–4	Questions require either one or two ‘things’ If two: 1 mark basic answer. 2 marks elaboration. If one: 1–2 marks basic answer. 3–4 marks detailed answer/elaboration. If two required and only one provided, max 2 marks.
(d)	0–5	Question requires discussion . Question always plural of each argument. Question always requires conclusion. 1 mark for each for/against argument (however detailed) up to 4 max. 1 mark for conclusion. N.B. If three (or more) arguments for one side, best two credited. If one side only, max 2 marks.
0	0	No response worthy of credit.

Section B: Design a study question part (a) (Generic response descriptor)		
Level	Marks	Level Descriptor
4	9–10	- The design is appropriate to the named investigation and is based on thorough psychological knowledge. - The design is accurate, coherent and detailed, and it tests the proposed investigation competently. - Four or five design features are included. The features are clearly applied to the design throughout the answer and the candidate clearly understands the main features involved in designing an investigation. - The response has proposed an appropriate design, has applied a range of relevant methodological design features with competence and shown clear understanding.
3	7–8	- The design is appropriate to the named investigation and is based on good psychological knowledge. - The design is accurate, coherent and detailed, and it tests the proposed investigation competently. - Two or three design features are included. The features are often applied to the design and the candidate shows good understanding in places. - The response has proposed an appropriate design, has applied some relevant methodological design features and has shown good understanding.
2	4–6	- The design is mostly appropriate to the named investigation and is based on psychological knowledge. - The design is mostly accurate, coherent and detailed in places and it tests the proposed investigation. - Design features are limited in their understanding.
1	1–3	- The design may not be appropriate to the named investigation and use of terminology is sparse or absent. Basic psychological understanding is shown. - The design lacks coherence and is limited in understanding. - One or two appropriate design features are identified but incorrectly applied. The response lacks detail. The candidate describes the study listed on the syllabus.
0	0	No response worthy of credit.

Section B: Explain a study question part (b) (Generic response descriptor)		
Level	Marks	Level Descriptor
3	6–8	• Quality and depth of explanation is thorough. • Description of knowledge is accurate, coherent and detailed. • Use of terms is accurate and use of psychological terminology is comprehensive. • Understanding of methodology (such as elaboration, use of example, quality of description) is very good. • The design is effectively explained in relation to the topic area. • There is a balance of methodology and topic area/relevant study knowledge.
2	4–5	• Quality of explanation and depth of explanation is competent. • Description of knowledge is mainly accurate, coherent and reasonably detailed. • Use of terms is mainly accurate and use of psychological terminology is competent. • Understanding of methodology (such as elaboration, use of example, quality of description) is good. • The design is adequately explained in relation to the topic area. • There is an imbalance of methodology and topic area/relevant study knowledge. • Max 5 marks if only methodological or psychological decisions.
1	1–3	• Quality of explanation and depth of explanation is basic. • Description of knowledge is often accurate, generally coherent, but lacks detail. • Use of terms is basic and use of psychological terminology is adequate. • Understanding of methodology (such as elaboration, use of example, quality of description) is limited. • The design is poorly explained in relation to the topic area. • There is an imbalance of methodology and topic area/relevant study knowledge.
0	0	• No response worthy of credit

Section C: Essay/Evaluate (Generic response descriptor)		
Level	Marks	Level Descriptor
N.B.: Questions are always worded in the same way: ‘to what extent do you agree with this statement? Use examples of research you have studied to support your answer’. However, the words ‘research’ must be taken in the widest sense: (i) different examples can be used from the same piece of research; (ii) examples from different pieces of research; (iii) examples from methodology, such as a specific method or technique; (iv) examples from methodological issues such as ethics, generalisations, quantitative/qualitative data; psychological versus physiological, etc. (v) examples of debates and issues such as reductionism & holism; individual & situational, etc.		
4	10–12	• Both sides of the argument are considered and are relevant to the question. • Appropriate examples are included which fully support both sides. • Discussion is detailed with good understanding and clear expression. • A conclusion is drawn with appropriate justification.
3	7–9	• Both sides of the argument are considered and are relevant to the question. They may be imbalanced in terms of quality or quantity. • Some examples are included, are appropriate and often support both sides. • The answer shows good discussion with reasonable understanding. • A basic conclusion is drawn with little or no justification
2	4–6	• Reasons are limited to one side of the argument/[both sides basic]. • Limited reference to examples, or lack of detail. • The answer shows some understanding. • There is no conclusion.
1	1–3	• Anecdotal discussion, brief detail, minimal relevance. Very limited range. • Discussion may be inaccurate or incomplete. • May evaluate topic area studies, making only indirect reference to the question. • [May describe relevant studies with minimal reference to the question].
0	0	• No response worthy of credit.

Question	Answer	Marks
Section A: Stimulus question Psychology and abnormality		
1	Newspaper headline: Treatment for schizophrenia is successful. Sensky et al. (2000) conducted a longitudinal study and found that cognitive-behavioural therapy was effective. It treated both negative and positive symptoms in patients that were resistant to drug treatments for schizophrenia.	
1(a)	Explain what is meant by the term ‘baseline’ when gathering data. Most likely answer (other appropriate responses to be credited): Gathering baseline data at the outset of a programme allows a comparison with data gathered afterward, allowing changes to be tracked to determine whether any intervention has been effective. Marks: 1 mark basic answer (simple description), 2 marks detailed answer/elaboration.	2
1(b)	Suggest <u>two</u> weaknesses of the longitudinal method in the study by Sensky et al. (2000). Most likely answer (other appropriate responses to be credited): • Participants may drop out over the 9 months of therapy and 9 months of follow-up • Over time, participants may not follow the treatment programme exactly; may take other medications; may develop other symptoms and/or illnesses. Marks: 1 mark generic weakness, 2 marks weakness related to this study ×2	4
1(c)	A randomised controlled design was used by Sensky et al.	
1(c)(i)	Identify the <u>two</u> therapies that this design compared. Most likely answer (other appropriate responses to be credited): • ‘manualized cognitive behavioural therapy developed particularly for schizophrenia with that of a nonspecific befriending control intervention.’ Marks: 1 mark for each correctly identified therapy.	2
1(c)(ii)	Suggest why a randomised controlled design was used. Most likely answer (other appropriate responses to be credited): • Researchers do not allocate participants to conditions so there is no bias. Instead participants are allocated randomly, by chance, so reducing extraneous variables. Use of control group etc. Marks: 1 mark basic answer (identification), 2 marks detailed answer/elaboration	2

Question	Answer	Marks
1(d)	Discuss the strengths and weaknesses of cognitive-behavioural therapy as an alternative to drug treatments for schizophrenia. You should include a conclusion in your answer. Most likely answer (other appropriate responses to be credited): Strengths: • no drugs are taken • the patient does not become addicted to drugs • the patient plays a more active role in their own treatment • a therapist is there to guide the patient through the treatment Weaknesses: • more effort is needed by the patient; it isn't passive as is taking a drug • the cause of schizophrenia may be biochemical and so a drug treatment may be best • a therapist is needed, which costs more and consumes more time than does swallowing a pill Conclusion: any appropriate conclusion drawn from the discussion that has been presented. 1 mark if appropriate. A conclusion is a 'decision reached by reasoning' and so a summary of points already made scores 0 marks. Marks: Question requires discussion; always plural of each argument, and always requires conclusion. 1 mark for each advantage/disadvantage (however detailed) and related to the question up to 4 max. 2 marks max for two strengths/weaknesses unrelated to the question. 1 mark for conclusion.	5

Question	Answer	Marks
Section A: Stimulus question psychology and consumer behaviour		
2	<i>'There has been little attempt to understand the influence on children of branded products that appear in television programs and movies. A study exposed children of two different age groups (6–7 and 11–12) in classrooms to a brief film clip. They were then individually asked to demonstrate their witness skills by describing in as much detail as possible what they had seen.'</i> <i>Extract from the abstract from Auty and Lewis (2004)</i>	
2(a)	Explain what is meant by 'brand recognition'. Most likely answer (other appropriate responses to be credited): Brand recognition is the consumer's ability to recognise a firm from its distinctive logo, motto or artistic symbol. Marks: 1 mark for basic answer, 1 mark for elaboration/example.	2
2(b)	Give the <u>two</u> conclusions from the study by Auty and Lewis (2004). Most likely answer (other appropriate responses to be credited): Quote: 'The responses to the interviews suggest 1 that it is not simply exposure to the film but rather previous exposure together with a reminder in the form of recent exposure that affects choice.' 2 Age (and by implication processing skill) does not appear to be a mediating factor affecting choice, because implicit memory (mere exposure) seems to be more important than explicit recall. Marks: 1 mark basic answer, 2 marks detailed answer/elaboration × 2.	4
2(c)(i)	Give <u>two</u> examples of what Auty and Lewis did to ensure that the ethical guideline of informed consent was followed. Most likely answer (other appropriate responses to be credited): Quote: • 'Within their classes, participants were randomly assigned by their teachers to groups alphabetically by last name' [and so the teachers knew what the study involved]. • 'Prior written permission to offer children a soft drink during a brief interview was obtained from parents.' • 'Parents and teachers were told that children would be asked questions about their observations after they viewed a film clip.' Marks: 1 mark for each correct answer.	2

Question	Answer	Marks
2(c)(ii)	Suggest <u>one</u> way in which this study could be considered to be unethical. Most likely answer (other appropriate responses to be credited): • Psychological harm: the children might have been uncomfortable being interviewed by a strange adult; • Right to withdraw: the children may not have understood this, or if they did, may have been afraid to exercise their right. • Debrief: no evidence that this was done: 'Each interview took about 5 minutes after which the child was returned to the classroom and the next one called out'. Marks 0 marks for identifying a guideline. 1 mark for outline; 2 marks for identifying guideline and describing how the suggestion relates to this study.	2
2(d)	Discuss the advantages and disadvantages of using interviews to investigate brand recognition in children. You should include a conclusion in your answer. Most likely answer (other appropriate responses to be credited): Advantages: • interviews allow children to give their viewpoint of the study in full detail • interviews can be done individually, so no embarrassment, etc. • an interview could be unstructured, allowing free interaction; it could be structured allowing researchers to cover 'essential' questions • the interview can be recorded providing evidence of what was said should it be needed Disadvantages: • children may be reluctant to be interviewed but go ahead because it is what the adult wants • children may not tell the truth, hiding information or modifying it • children may misunderstand questions Conclusion: any appropriate conclusion drawn from the discussion that has been presented. 1 mark if appropriate. A conclusion is a 'decision reached by reasoning' and so a summary of points already made scores 0 marks. Marks: Question requires discussion; always plural of each argument, and always requires conclusion. 1 mark for each advantage/disadvantage (however detailed) and related to the question up to 4 max. 2 marks max for two strengths/weaknesses unrelated to the question. 1 mark for conclusion.	5

Question	Answer	Marks
Section A: Stimulus question psychology and health		
3	The Wong-Baker faces pain rating scale for children. Fig. 3.1	
3(a)	Explain how the Wong-Baker scale is used to measure pain in children. Most likely answer: Wong-Baker scale is shown to children; children point to the face that reflects their level of pain. Marks: 1 mark basic answer (identification), 2 marks detailed answer/elaboration	2
3(b)(i)	Explain how the test-retest reliability of this scale could be tested. Most likely answer (other appropriate responses to be credited): Repeating the test after a period of time and comparing the results. Quote from study: 'Retesting occurred the day after the initial test except in a few instances when it was done 2 to 4 days later.' Marks: 0 marks for 'doing the test again'. 1 mark for 'repeating again after a period of time', 2 marks for link to study i.e. 2–4 days, or what was tested i.e. 6 different scales, colours and painful events.	2
3(b)(ii)	Suggest <u>one</u> reason why this scale might be less useful with older children than with younger children. Most likely answer (other appropriate responses to be credited): Quote from study: 'the decrease in reliability at age 12 is puzzling.' - One possible explanation may be related to the investigators' perception that the interest of older children decreased during the retest. Therefore, the older subjects may have been less motivated to rate the pain accurately than young children who enthusiastically enjoyed the testing procedure (and so the measure is less useful). - It may also be that young children remembered the pain more acutely than older children (and so the measure is less useful). Obviously, more research is needed to answer the question of declining reliability with age beyond 12 years.' Marks: 1 mark basic answer (identification), 2 marks detailed answer/elaboration.	2

Question	Answer	Marks
3(c)	Suggest <u>two</u> ways in which pain can be measured in children without using a pain rating scale. Most likely answer (other appropriate responses to be credited): • McGill pain Questionnaire (MPQ) – this has some rating scales e.g. Section 4: ‘How strong is your pain?’ (no credit for this aspect), but Section 1 ‘Where is your pain?’ is where patients mark on a drawing where their pain is. Section 2: ‘What does your pain feel like?’ where patients use descriptor words and Section 3: ‘How does your pain change with time?’ can all be credited. • Behavioural/observational measures can involve simply observing a child: facial or audible expression; distorted ambulation; crying, etc. UAB is a rating scale and so scores no marks. • Clinical interview is creditworthy. • The Paediatric Pain Questionnaire (Varni and Thompson, 1976) gets children to pick colours and then colour a box, but the boxes are on a rating scale, so no credit. • No credit for any visual rating scale such as visual analogue scale, box scale, etc. Marks: 1 mark basic answer (e.g. identification of measure), 2 marks detailed answer/elaboration × 2.	4
3(d)	Discuss the advantages and disadvantages of having pain measures specifically for use with children. You should include a conclusion in your answer. Most likely answer (other appropriate responses to be credited): Advantages: • children may be too young to explain their pain/take part in an ‘adult’ clinical interview • children may not understand the questions that are being asked by a medical practitioner (e.g complex language) • children may be nervous about the practitioner or what procedure they have to undergo and so a ‘child-friendly’ colouring task, or row of faces to choose from, may put them at ease. Disadvantages: • the ‘smiley face’ may not translate into actual pain or the type of pain the child is experiencing. It might not be valid. • the smiley face may not be reliable: as the study showed. • the study may not be valid: In the Wong and Baker study children were not in pain when the measures were taken. Taking the measures when the children are in pain may be very different. Conclusion: any appropriate conclusion drawn from the discussion that has been presented. 1 mark if appropriate. A conclusion is a ‘decision reached by reasoning’ and so a summary of points already made scores 0 marks. Marks: Question requires discussion; always plural of each argument, and always requires conclusion. 1 mark for each advantage/disadvantage (however detailed) and related to the question up to 4 max. 2 marks max for two strengths/weaknesses unrelated to the question. 1 mark for conclusion.	5

Question	Answer	Marks																		
Section A: Stimulus question psychology and organisations																				
4	Wedley and Field (1984) proposed that the decision-making process of any group can be improved using a pre-decision support system. Their model of the pre-decision process begins with the manager answering situational questions. Examples of these questions and how they could be answered appear in Table 4.1. <table border="1"> <thead> <tr> <th>Question number</th><th>Questions</th><th>Your answers</th></tr> </thead> <tbody> <tr> <td>1</td><td>Is quality required?</td><td>Yes ~~No~~</td></tr> <tr> <td>2</td><td>Have you sufficient information?</td><td>~~Yes~~ No</td></tr> <tr> <td>3</td><td>Is the problem structured?</td><td>~~Yes~~ No</td></tr> <tr> <td>4</td><td>Is acceptance important?</td><td>Yes ~~No~~</td></tr> <tr> <td>5</td><td>Would your autocratic decision be accepted?</td><td>Yes ~~No~~</td></tr> </tbody> </table>	Question number	Questions	Your answers	1	Is quality required?	Yes ~~No~~	2	Have you sufficient information?	~~Yes~~ No	3	Is the problem structured?	~~Yes~~ No	4	Is acceptance important?	Yes ~~No~~	5	Would your autocratic decision be accepted?	Yes ~~No~~	
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4	Is acceptance important?	Yes ~~No~~																		
5	Would your autocratic decision be accepted?	Yes ~~No~~																		
4(a)	Explain what is meant by the term ‘pre-decision support system’. Most likely answer (other appropriate responses to be credited): A decision support system (DSS) is a computerised information system used to support decision-making in an organisation or a business. A DSS lets users sift through and analyse massive reams of data and compile information that can be used to solve problems and make better decisions. For Wedley and Field, DSSs deal with less structured situations in which greater management judgement is required. Marks: 1 mark for basic answer. 1 mark for elaboration/example.	2																		
4(b)(i)	Identify the type of questions used to gather the data in Table 4.1. Answer (other appropriate responses to be credited): Closed (ended) questions. Marks: 1 mark for correct identification.	1																		
4(b)(ii)	Identify the type of data gathered in Table 4.1. Answer (other appropriate responses to be credited): - quantitative data (number of yes or no answers) - categorical data (frequencies). - nominal data. Marks: 1 mark for correct identification.	1																		

Question	Answer	Marks
4(c)	Suggest <u>two</u> ways in which a decision support system can improve managerial effectiveness. Most likely answer (other appropriate responses to be credited): Quote from study: 'DSS improve managerial effectiveness by: • Improving personal efficiency by allowing a manager to perform a task in a different way that uses less time or less effort • Expediting problem solving by providing faster turnaround, never insights, better consistency and greater accuracy • Facilitating interpersonal communication both with specific individuals and across organisational boundaries • Fostering learning or training • Improving overall control' Marks: 1 mark basic answer, 2 marks detailed answer/elaboration/example × 2. Equity theory scores no marks.	4
4(d)	Discuss the advantages and disadvantages of gathering data from managers and workers about decision-making in their organisation. You should include a conclusion in your answer. Most likely answer (other appropriate responses to be credited): Advantage: • Workers want to please management and show organisational commitment (e.g. Mowday et al.) • Workers want to impress to show that they are good, efficient workers • Managers want to gather data from their own workers, whom they may know well Disadvantage: • Workers want to go against management showing no organisational commitment (e.g. sabotage) • Workers want to impress to show that they are good, efficient workers and may not tell the truth • Workers may respond to demand characteristics (e.g. Hawthorne effect) • Managers may have a hidden agenda • Managers may know workers and may not report what workers accurately Conclusion: any appropriate conclusion drawn from the discussion that has been presented. 1 mark if appropriate. A conclusion is a 'decision reached by reasoning' and so a summary of points already made scores 0 marks. Marks: Question requires discussion; always plural of each argument, and always requires conclusion. 1 mark for each advantage/disadvantage (however detailed) and related to the question up to 4 max. 2 marks max for two strengths/weaknesses unrelated to the question. 1 mark for conclusion.	5

Question	Answer	Marks
Section B: Design question (a) = 10 marks, (b) = 8 marks		
5(a)	Design a study to investigate which type of phobia the general public think is the <u>most</u> common. Marks: use generic levels of response Design a study question part (a). Additional: Candidates should design the study showing evidence of design features appropriate to the named method. The named method is: any appropriate method. Specific features: • Experiments: type, IV, DV, controls, experimental design. • Observations: type, setting, response categories, sampling frame, number of observers. • Questionnaires/Interviews: type, setting, example questions. Scoring/rating scale, analysis of responses. General features of research methodology: sampling technique and sample, type of data, ethics, reliability, validity, data analysis.	10
5(b)	Explain the psychological and methodological evidence on which your study is based. Marks: use generic levels of response 'Design a study' question part (b). NB If only methodological or psychological explanation is provided max 5 marks Candidates are expected to explain the reasons for the suggested design in part (a). Explanation should be both psychological and methodological. Psychological to include appropriate theory or research. Additional: candidates are expected to justify their decisions or evidence presented regarding the design made in answer to question part (a). Syllabus: characteristics of anxiety disorders: types: agoraphobia and specific phobias (blood phobia, animal phobia, button phobia). Psychological: <i>Types of phobia from various sources: dogs (DiNardo et al.); buttons (Saavedra and Silver); various animals (Watson and Rayner) Horses (little Hans).</i> NB 2 marks max if psychological knowledge is not related to answer. Methodological: explanation of method using general and specific features as above.	8

Question	Answer	Marks
6(a)	Design a study using a questionnaire to investigate whether people prefer a customer-focused approach or a product-focused approach when buying a new car. Marks: use generic levels of response Design a study question part (a). Additional: Candidates should design the study showing evidence of design features appropriate to the named method. The named method is: questionnaire. Specific features: Questionnaires: type, setting, example questions. Scoring/rating scale, analysis of responses. General features of research methodology: sampling technique & sample, type of data, ethics, reliability, validity, data analysis.	10
6(b)	Explain the psychological and methodological evidence on which your study is based. Marks: use generic levels of response ‘Design a study’ question part (b). NB If only methodological or psychological explanation is provided max 5 marks Candidates are expected to explain the reasons for the suggested design in part (a). Explanation should be both psychological and methodological. Psychological to include appropriate theory or research. Additional: candidates are expected to justify their decisions or evidence presented regarding the design made in answer to question part (a). Syllabus: selling the product: sales techniques: customer/competitor/product focused. Psychological: Product-focused: emphasis on the product; special features, design specifications etc., educating the customer about the product; sales person needs excellent knowledge of product. Customer focused: customer viewed as unique so emphasis on customer. Seller asks about customer needs, wants and desires so fit the product to the customer. NB 2 marks max if psychological knowledge is not related to answer. Methodological: explanation of method using general and specific features as above.	8

Question	Answer	Marks
7(a)	Design a study using an interview to investigate what the students in a school understand by the terms ‘acute pain’ and ‘chronic pain’. Marks: use generic levels of response Design a study question part (a). Additional: Candidates should design the study showing evidence of design features appropriate to the named method. The named method is: interview. Specific features: Interviews: type, setting, example questions. Scoring/rating scale, analysis of responses. General features of research methodology: sampling technique & sample, type of data, ethics, reliability, validity, data analysis.	10
7(b)	Explain the psychological and methodological evidence on which your study is based. Marks: use generic levels of response ‘Design a study’ question part (b). NB If only methodological or psychological explanation is provided max 5 marks Candidates are expected to explain the reasons for the suggested design in part (a). Explanation should be both psychological and methodological. Psychological to include appropriate theory or research. Additional: candidates are expected to justify their decisions or evidence presented regarding the design made in answer to question part (a). Syllabus: types and theories of pain: definitions of pain: acute and chronic organic pain; psychogenic pain (phantom limb pain) Psychological: • Acute pain: short-term, temporary (e.g. finger trapped in a door) • Chronic pain: long term (3 months or more) e.g. arthritis. NB 2 marks max if psychological knowledge is not related to answer. Methodological: explanation of method using general and specific features as above.	8

Question	Answer	Marks
8(a)	Design a study using observations to investigate which followership type is the <u>most</u> common in an organisation producing toys. Marks: use generic levels of response Design a study question part (a). Additional: Candidates should design the study showing evidence of design features appropriate to the named method. The named method is: observation. Specific features: Observations: type, setting, response categories, sampling frame, number of observers. General features of research methodology: sampling technique & sample, type of data, ethics, reliability, validity, data analysis.	10
8(b)	Explain the psychological and methodological evidence on which your study is based. Marks: use generic levels of response ‘Design a study’ question part (b). NB If only methodological or psychological explanation is provided max 5 marks Candidates are expected to explain the reasons for the suggested design in part (a). Explanation should be both psychological and methodological. Psychological to include appropriate theory or research. Additional: candidates are expected to justify their decisions or evidence presented regarding the design made in answer to question part (a). Syllabus: leaders and followers: followership: qualities of and types (Kelley, 1988) Psychological: <i>Kelley (1988) outlines five styles:</i> • Conformist followers (‘the yes people’) allow leaders to think and act and are positive and on the leader’s side. • Alienated followers: predominantly negative; think for themselves but do not contribute to direction of the organisation. • Passive followers (‘the sheep’) passive thinking and engagement; motivated by their leader rather than themselves. • Pragmatist followers minimal level of independent thinking and engagement; change to suit the situation • Exemplary (‘star’) followers think for themselves, have positive energy, and are actively engaged. NB 2 marks max if psychological knowledge is not related to answer. Methodological: explanation of method using general and specific features as above.	8

Question	Answer	Marks
Section C: Evaluation question = 12 marks		
9	<i>‘Symptom assessment of schizophrenia using virtual reality will one day remove the need for a doctor.’</i> To what extent do you agree with this statement? Use examples of research you have studied to support your answer. Marks: use generic levels of response in table C. Syllabus: Characteristics of schizophrenia: symptom assessment using virtual reality Most likely (any other appropriate responses should be credited): No doctor: - patients sometimes prefer to give more personal details to a computer (e.g. Robinson and West) - patients can interact with a computer/VR in a situation and show how they would actually behave rather than try to describe it to a doctor ‘The practitioner has no idea of how the patient actually behaves in the real world (or whether they are telling the truth)’ - patients can be dishonest to a doctor, but may be honest as the VR situation demands - in the future computers/VR may be able to interpret symptoms and diagnose also. Doctor: - the doctor will always need to interpret behaviour and diagnose - the doctor will always need to prescribe appropriate medication (if deemed most suitable) - the doctor has experience and that can never be programmed into a computer - the doctor can ask questions as they arise; a computer/VR cannot ‘interact’	12

Question	Answer	Marks
10	<i>‘The theory of planned behaviour: if you plan to buy and you intend to buy, you definitely will buy.’</i> To what extent do you agree with this statement? Use examples of research you have studied to support your answer. Marks: use generic levels of response in table C. Syllabus: purchase decisions: theory of planned behaviour (Ajzen, 1991) Most likely (any other appropriate responses should be credited): Support: • The model proposes that intentions (to purchase) automatically lead to behaviour (purchase). • The model has much supporting evidence: predictive of the purchase of a specific brand of grape drink (Bonfield, 1974), and toothpaste (Wilson, et al., 1975). • The model is said to apply in all cultures e.g. Bagozzi et al. (2000) Does not support: • Although the model proposes that intentions automatically lead to behaviour, this is not always the case. What people say and what they do is sometimes different. • There are always individual differences (e.g. as there are different types of shopper) and so there will also be cultural differences • The model is too general: whilst it might apply to some things (e.g. health behaviour) it might not apply to other things (such as consumer behaviour) • There are alternative models, such as the black-box model and the consumer decision model.	12

Question	Answer	Marks
11	<i>‘Health promotion strategies developed in one country, such as those in the five city project (Farquhar et al., 1985), can never generalise to other countries.’</i> To what extent do you agree with this statement? Use examples of research you have studied to support your answer. Marks: use generic levels of response in table C. Syllabus: health promo in schools, worksites & communities: communities (five city project, Farquhar et al., 1985) Most likely (any other appropriate responses should be credited): Only USA: • The USA has obesity and poor heart health, unlike many other countries in the world. • The USA has, perhaps, a greater number of people exposed to appropriate media, such as television. • The USA has many cities of approx. equal size so comparisons between cities can be made. Other countries may not have comparable cities/villages. Worldwide: • All countries need their inhabitants to improve their health in order to live longer • The techniques of health promotion, in general, are the same everywhere (fear arousal and providing information) • The measures taken in the five city project are physiological and so are reliable and the same measures can be taken anywhere on anyone.	12

Question	Answer	Marks
12	<i>‘Errors in group decision-making are always due to the cognitive limitations of an individual rather than to being part of a groupthink situation.’</i> To what extent do you agree with this statement? Use examples of research you have studied to support your answer. Marks: use generic levels of response in table C. Syllabus: Decision-making: cognitive limitations and errors (Forsyth, 2006); groupthink (Janis, 1971) and strategies to avoid groupthink. Most likely (any other appropriate responses should be credited): Individual: • People are sometimes limited in their understanding; they sometimes make ‘sins of commission’: belief perseverance, for example • People are sometimes poor in socially interacting in groups • People sometimes have a particular type of personality less cohesive to group dynamics • People will sometimes have ‘interpersonal conflict’ with other group members Situational • Groupthink itself is the result of situational/group rather than individual decision-making • Individuals may want to ‘impress the boss’ and so agree with group decisions rather than questioning them • Conflict created by raising questions might harm group cohesiveness.	12



Cambridge International AS & A Level

PSYCHOLOGY

9990/42

Paper 4 Specialist Options: Applications

May/June 2020

MARK SCHEME

Maximum Mark: 60

Published

Students did not sit exam papers in the June 2020 series due to the Covid-19 global pandemic.

This mark scheme is published to support teachers and students and should be read together with the question paper. It shows the requirements of the exam. The answer column of the mark scheme shows the proposed basis on which Examiners would award marks for this exam. Where appropriate, this column also provides the most likely acceptable alternative responses expected from students. Examiners usually review the mark scheme after they have seen student responses and update the mark scheme if appropriate. In the June series, Examiners were unable to consider the acceptability of alternative responses, as there were no student responses to consider.

Mark schemes should usually be read together with the Principal Examiner Report for Teachers. However, because students did not sit exam papers, there is no Principal Examiner Report for Teachers for the June 2020 series.

Cambridge International will not enter into discussions about these mark schemes.

Cambridge International is publishing the mark schemes for the June 2020 series for most Cambridge IGCSE™ and Cambridge International A & AS Level components, and some Cambridge O Level components.

This document consists of **22** 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 descriptors 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.

Section A: Stimulus (Generic response descriptor)		
(a)	0–2	1 mark for basic answer e.g. identification. 1 mark for elaboration/example.
(b)	0–4	Question always requires two ‘things’ 1 mark basic answer. 2 marks elaboration. Max 2 marks if only ‘one’ is answered.
(c)	0–4	Questions require either one or two ‘things’ If two: 1 mark basic answer. 2 marks elaboration. If one: 1–2 marks basic answer. 3–4 marks detailed answer/elaboration. If two required and only one provided, max 2 marks.
(d)	0–5	Question requires discussion . Question always plural of each argument. Question always requires conclusion. 1 mark for each for/against argument (however detailed) up to 4 max. 1 mark for conclusion. N.B. If three (or more) arguments for one side, best two credited. If one side only, max 2 marks.
0	0	No response worthy of credit.

Section B: Design a study question part (a) (Generic response descriptor)		
Level	Marks	Level Descriptor
4	9–10	- The design is appropriate to the named investigation and is based on thorough psychological knowledge. - The design is accurate, coherent and detailed, and it tests the proposed investigation competently. - Four or five design features are included. The features are clearly applied to the design throughout the answer and the candidate clearly understands the main features involved in designing an investigation. - The response has proposed an appropriate design, has applied a range of relevant methodological design features with competence and shown clear understanding.
3	7–8	- The design is appropriate to the named investigation and is based on good psychological knowledge. - The design is accurate, coherent and detailed, and it tests the proposed investigation competently. - Two or three design features are included. The features are often applied to the design and the candidate shows good understanding in places. - The response has proposed an appropriate design, has applied some relevant methodological design features and has shown good understanding.
2	4–6	- The design is mostly appropriate to the named investigation and is based on psychological knowledge. - The design is mostly accurate, coherent and detailed in places and it tests the proposed investigation. - Design features are limited in their understanding.
1	1–3	- The design may not be appropriate to the named investigation and use of terminology is sparse or absent. Basic psychological understanding is shown. - The design lacks coherence and is limited in understanding. - One or two appropriate design features are identified but incorrectly applied. The response lacks detail. The candidate describes the study listed on the syllabus.
0	0	No response worthy of credit.

Section B: Explain a study question part (b) (Generic response descriptor)		
Level	Marks	Level Descriptor
3	6–8	• Quality and depth of explanation is thorough. • Description of knowledge is accurate, coherent and detailed. • Use of terms is accurate and use of psychological terminology is comprehensive. • Understanding of methodology (such as elaboration, use of example, quality of description) is very good. • The design is effectively explained in relation to the topic area. • There is a balance of methodology and topic area/relevant study knowledge.
2	4–5	• Quality of explanation and depth of explanation is competent. • Description of knowledge is mainly accurate, coherent and reasonably detailed. • Use of terms is mainly accurate and use of psychological terminology is competent. • Understanding of methodology (such as elaboration, use of example, quality of description) is good. • The design is adequately explained in relation to the topic area. • There is an imbalance of methodology and topic area/relevant study knowledge. • Max 5 marks if only methodological or psychological decisions.
1	1–3	• Quality of explanation and depth of explanation is basic. • Description of knowledge is often accurate, generally coherent, but lacks detail. • Use of terms is basic and use of psychological terminology is adequate. • Understanding of methodology (such as elaboration, use of example, quality of description) is limited. • The design is poorly explained in relation to the topic area. • There is an imbalance of methodology and topic area/relevant study knowledge.
0	0	• No response worthy of credit

Section C: Essay/Evaluate (Generic response descriptor)		
Level	Marks	Level Descriptor
N.B.: Questions are always worded in the same way: ‘to what extent do you agree with this statement? Use examples of research you have studied to support your answer’. However, the words ‘research’ must be taken in the widest sense: (i) different examples can be used from the same piece of research; (ii) examples from different pieces of research; (iii) examples from methodology, such as a specific method or technique; (iv) examples from methodological issues such as ethics, generalisations, quantitative/qualitative data; psychological versus physiological, etc. (v) examples of debates and issues such as reductionism & holism; individual & situational, etc.		
4	10–12	• Both sides of the argument are considered and are relevant to the question. • Appropriate examples are included which fully support both sides. • Discussion is detailed with good understanding and clear expression. • A conclusion is drawn with appropriate justification.
3	7–9	• Both sides of the argument are considered and are relevant to the question. They may be imbalanced in terms of quality or quantity. • Some examples are included, are appropriate and often support both sides. • The answer shows good discussion with reasonable understanding. • A basic conclusion is drawn with little or no justification
2	4–6	• Reasons are limited to one side of the argument/[both sides basic]. • Limited reference to examples, or lack of detail. • The answer shows some understanding. • There is no conclusion.
1	1–3	• Anecdotal discussion, brief detail, minimal relevance. Very limited range. • Discussion may be inaccurate or incomplete. • May evaluate topic area studies, making only indirect reference to the question. • [May describe relevant studies with minimal reference to the question].
0	0	• No response worthy of credit.

Question	Answer	Marks
Section A: Stimulus question Psychology and abnormality		
1	The use of nalmefene, a biochemical treatment, is believed by Grant et al. (2008) to help reduce the urge to gamble. To test its effectiveness, participants were assessed to ensure they were suitable to participate. They were then randomly allocated to either a group receiving nalmefene or to a group receiving a placebo.	
1(a)	Explain what is meant by the term ‘placebo’. Most likely answer (other appropriate responses to be credited): A placebo is a substance, such as a pill or injection (sugar or saline), given to a participant that has no therapeutic effect, but is where the participant responds as if they have received active ingredients. Marks: 1 mark for basic answer e.g. identification. 1 mark for elaboration/example.	2
1(b)	Outline <u>two</u> testing procedures used to assess participants’ gambling severity in the study by Grant et al. (2008). Most likely answer (other appropriate responses to be credited): Quote: • ‘studies enrolled only individuals with DSM-IV PG; psychiatric comorbidity was assessed using the Structured Clinical Interview for DSM-IV. A semi-structured, rater-administered questionnaire was used to collect clinical information. • Gambling severity was assessed with the Yale Brown Obsessive Compulsive Scale Modified for Pathological Gambling [PG-YBOCS]. The first five items of the PG-YBOCS comprise the gambling urge/thought subscale and the final five comprise the gambling behaviour subscale.’ Marks: 1 mark for basic answer. 1 mark for elaboration/example × 2	4

Question	Answer	Marks
1(c)	Give <u>two</u> reasons why this assessment excluded some participants from the study. Quote ‘Exclusion criteria for both studies included: 1 infrequent gambling (i.e. less than one time per week) that did not meet DSM-IV criteria for PG; 2 unstable medical illness or clinically significant abnormalities on laboratory tests, EKG, or physical examination at screening visit; 3 current pregnancy or lactation, or inadequate contraception in women of childbearing potential; 4 a need for medication other than nalmefene or naltrexone with possible psychotropic effects or medications with unfavorable interactions with nalmefene or naltrexone (e.g., narcotics); 5 lifetime history of bipolar disorder type I or II, dementia, schizophrenia, or any psychotic disorder; 6) current DSM-IV substance abuse or dependence with possible exception of nicotine dependence; 6 positive urine drug screen at screening; 7 initiation of psychotherapy or behavior therapy within 3 months prior to study baseline; 8 previous treatment with nalmefene or naltrexone; 9 clinically significant suicidality; 10 treatment with investigational medication or depot neuroleptics within 3 months, with fluoxetine within 4 weeks, or with other psychotropics within 2 weeks prior to study baseline.’ Marks: 1 mark basic answer, 2 marks detail/elaboration × 2.	4
1(d)	Discuss the strengths and weaknesses of using biochemicals to treat gambling disorder. You should include a conclusion in your answer. Most likely answer (other appropriate responses to be credited): Advantages: • Biochemicals easy to take; swallowing a pill. • Biochemicals mean the gambler is passive in their treatment (an advantage for many people) • Biochemicals prevent production of endorphins and other neurochemicals associated with arousal/pleasure Disadvantages: • biochemicals are addictive and the aim is to treat an addictive behaviour • biochemicals may not be taken as prescribed (non-adherence) • biochemicals ignore the role of alternative reasons why a gambler might be addicted. Conclusion: any appropriate conclusion drawn from the discussion that has been presented. 1 mark if appropriate. A conclusion is a ‘decision reached by reasoning’ and so a summary of points already made scores 0 marks. Marks: Question requires discussion; always plural of each argument, and always requires conclusion. 1 mark for each advantage/disadvantage (however detailed) and related to the question up to 4 max. 2 marks max for two strengths/weaknesses unrelated to the question. 1 mark for conclusion.	5

Question	Answer	Marks
Section A: Stimulus question psychology and consumer behaviour		
2	From the study by Robson et al. (2011) on consumers' responses to table spacing in restaurants: Fig. 2.1	
2(a)	Identify <u>two</u> features of the questionnaire used in the study by Robson et al. (2011). Answer: • Closed questions • It used a 7-point rating scale from strongly agree to strongly disagree • In two parts, first to collect demographic data / find out whether they had restaurant-trade experience and the second to find out about behavioural reactions in a restaurant • The questions were based on scenarios about restaurant eating • The questions were based on three different settings (romantic, friend and business) • The questions were supported by photos in the questionnaire. Marks: 1 mark for each correct answer	2
2(b)	Give <u>two</u> findings from the data in Fig. 2.1. Most likely answer (other appropriate responses to be credited): All of the four variables show that 6' spacing has a negative effect because scores were higher than all the others. Findings could be contrast of any two variables; could be difference between scores of 6' versus 12', or either with 24'. Any permutation would be correct. Marks: 1 mark statement of finding, 1 mark for evidence for finding. × 2	4
2(c)	Suggest <u>two</u> ways that could be used to collect data about the effect of table spacing in restaurants, other than a questionnaire. Most likely answer (other appropriate responses to be credited): • People who have actually sat at tables could be interviewed • People who are sitting at tables could be observed • An experiment could be conducted with table spacings and time taken comparing how long people stay at table (space invasion leads to flight behaviour) Marks: 1–2 marks basic answer (e.g. identification of method/technique) 3–4 marks elaboration/example of that technique.	4

Question	Answer	Marks
2(d)	Discuss the advantages and disadvantages of using internet-based questionnaires to gather data about the effect of table spacing in restaurants. You should include a conclusion in your answer. Most likely answer (other appropriate responses to be credited): Strengths: • Web-based: potentially a very large sample size with people from all over the world taking part • Asking people directly means that participants are given the opportunity to express their feelings and explain their behaviour rather than the researcher trying to work out reasons for their behaviour from other methods • Questionnaires are easy to replicate; same for telephone interviews • Data can be quantitative, but may also be qualitative depending on type of question Weaknesses: • Web-based: potentially a small number of participants: the research/questionnaire has to be in a place where it can be found by potential participants. • Some participants may provide socially desirable responses; not give truthful answers; respond to demand characteristics. • Closed/fixed choice questions may force people into choosing answers that do not reflect their true opinion and therefore may lower the validity. • Researchers have to be careful about use of leading questions; it could affect the validity of the data collected. Conclusion: any appropriate conclusion drawn from the discussion that has been presented. 1 mark if appropriate. A conclusion is a 'decision reached by reasoning' and so a summary of points already made scores 0 marks. Marks: Question requires discussion; always plural of each argument, and always requires conclusion. 1 mark for each advantage/disadvantage (however detailed) and related to the question up to 4 max. 2 marks max for two strengths/weaknesses unrelated to the question. 1 mark for conclusion.	5

Question	Answer	Marks
Section A: Stimulus question psychology and health		
3	Poor adherence in asthma patients has been associated with more wheezing and more frequent need for hospitalisations. Patients with the most severe asthma appear to have worse adherence than other asthma patients. The study by Sherman et al. (2000) was conducted to investigate whether telephoning the patient's pharmacy to obtain a prescription refill history gathers accurate information about medication-taking behaviour.	
3(a)	Explain how the participants were selected for the study by Sherman et al. (2000). Most likely answer (other appropriate responses to be credited): They were identified before clinics by chart review. At the beginning of the clinic visit, a research nurse briefly interviewed the patient, caretaker, or both to find out the name and location of each pharmacy from which they obtained prescription medication. Marks: 1 mark for basic answer e.g. identification, plus 1 mark for elaboration/example.	2
3(b)	Give <u>one</u> strength and <u>one</u> weakness of selecting the participants in this way. Most likely answer (other appropriate responses to be credited): Strength: • Being identified by chart review meant that they were appropriate people to include • Being interviewed meant that the nurse could explain the purpose of the study and the participant could give consent. Weakness: • Opportunity sampling meant that the nurse could choose those who were more likely to adhere to taking medication • Being interviewed by the nurse may mean that the participant felt obliged to take part. Marks: 1 mark basic answer. 2 marks detail/elaboration x2.	4
3(c)(i)	Suggest <u>one</u> way in which data on adherence could be gathered, other than by using pharmacy records. Most likely answer (other appropriate responses to be credited): • subjective: asking practitioner (Riekart and Droter, 1999) • objective: pill counting (Chung and Naya, 2000) • biochemical tests (Roth and Caron, 1978) Marks: 1 mark basic answer, 2 marks detailed answer/elaboration	2

Question	Answer	Marks
3(c)(ii)	Suggest <u>one</u> advantage of the way to gather data that you suggested in (c)(i). Most likely answer (other appropriate responses to be credited): • subjective: asking practitioner: practitioner knows the patient and their medical history: history of adhering or not • objective: pill counting: gives quantitative data so comparisons can be made • biochemical tests: if medicine has been taken then the test will reveal it with 100% accuracy Marks: 1 mark basic answer, 2 marks detailed answer/elaboration	2
3(c)	Discuss the strengths and weaknesses of using pharmacy records to gather data on adherence to taking medication. You should include a conclusion in your answer. Most likely answer (other appropriate responses to be credited): Advantages: • Pharmacy records involve no subjective comment (which may be dishonest answers) from a patient • Pharmacy records are objective measures: if the prescription is collected or not • Pharmacy records provide quantitative data which can be statistically analysed and compared Disadvantages: • a patient should be allowed to comment on their own medication and why they may not be taking it • the objective measure may not be valid: the pharmacy records only records the medication leaving the pharmacy (for example) • pharmacy records give numbers; they do not give explanations • pharmacy records may not be reliable (recording of prescription, reporting of prescription over telephone) Conclusion: any appropriate conclusion drawn from the discussion that has been presented. 1 mark if appropriate. A conclusion is a 'decision reached by reasoning' and so a summary of points already made scores 0 marks. Marks: Question requires discussion; always plural of each argument, and always requires conclusion. 1 mark for each advantage/disadvantage (however detailed) and related to the question up to 4 max. 2 marks max for two strengths/weaknesses unrelated to the question. 1 mark for conclusion.	5

Question	Answer	Marks
Section A: Stimulus question psychology and organisations		
4	The Minnesota satisfaction questionnaire (MSQ) measures satisfaction with the work environment. The long version takes 15-20 minutes to complete, using 100 satisfaction items. It is easy to read and Weiss et al. (1967) say it is both reliable and valid. It can be completed as a postal questionnaire or in an interview setting.	
4(a)	Explain how Weiss et al. (1967) know the MSQ is reliable. Most likely answer from study: - Hoyt's ANOVA was used. Table 1 presents co-efficients for all twenty items and most are greater than 0.9. - Test-retest correlations were used at one week (N = 75) and at one year (N = 115). Correlations range from 0.66 to 0.91 for the twenty items. Data in Table 2 of study. - A correlation was applied to test-retest data Marks: 1 mark for basic answer e.g. identification of test-retest, plus 1 mark for elaboration/example.	2
4(b)(i)	Give <u>two</u> MSQ satisfaction items. Most likely answer (other appropriate responses to be credited): From study: 1. Ability Utilization (e.g. Q7: the chance to do the kind of work that I do best); 2. Achievement; 3. Activity; 4. Advancement; 5. Authority; 6. Company Policies; 7. Compensation; 8. Co-workers; 9. Creativity; 10. Independence (e.g. Q24: the chance to work alone on the job); 11. Moral Values; 12. Recognition (e.g. Q18: the way I am noticed when I do a good job); 13. Responsibility; 14. Security; 15. Social Status; 16. Social Service (e.g. Q41: the chance to help people); 17. Supervision-Human Relations; 18. Supervision-Technical; 19. Variety (e.g. Q25: the chance to do different things from time to time); 20. Working Conditions. Marks: 1 mark for each correct identification.	2
4(b)(ii)	Suggest <u>one</u> problem that would arise if the questionnaire took longer than 20 minutes to complete. Most likely answer (other appropriate responses to be credited): - Participants may be enthusiastic at the start but lose interest as time passes - Same applies if any questionnaire is too long/has too many questions - Participant does not answer questions in the right way, and validity is lost - This is why split-half measures are taken Marks: 1 mark basic answer (e.g. first bullet point), 2 marks detailed answer/elaboration (3rd bullet point)	2

Question	Answer	Marks
4(c)	Suggest <u>two</u> disadvantages of using a five-point scale, using an example from the MSQ. Most likely answer (other appropriate responses to be credited): Disadvantages: • participants could ‘opt-out’ and give neutral responses for certain questions. A participant may do this if they fear that management will see the responses (example from list of 20 above). • Opting out/neutral responses do not help researchers to draw conclusions. MSQ: 5-point scale is: Very dissatisfied – Dissatisfied – Neither dissatisfied nor satisfied – Satisfied – Very satisfied. A forced four- or six-point choice does not allow an opt out and a decision, even 51/49 one way or the other, must be made. Marks: 1 mark basic answer, 2 marks detailed answer/elaboration × 2.	4
4(d)	Discuss the advantages and disadvantages of using postal questionnaires to gather data about work satisfaction. You should include a conclusion in your answer. Most likely answer (other appropriate responses to be credited): Advantages: • people can read at their own leisure (in their own home), think and then make decisions (without pressure from anyone) • questionnaires can provide quantitative data which may allow comparisons; Questionnaires can provide qualitative data through open ended questions allowing a worker to report in detail • questionnaires can be completed anonymously, and so honest answers are more likely • postal questionnaire can be more detailed than an interview, or a ‘do-it-now’ questionnaire Disadvantages: • people may not receive the mailing; or receive it but never read it • people read the information but not act on it (or forget to act on it) • people may forget to return it. Approx 10% of postal questionnaires are returned • costs of postage sending out and returning; cost of printing and envelopes. Conclusion: any appropriate conclusion drawn from the discussion that has been presented. 1 mark if appropriate. A conclusion is a ‘decision reached by reasoning’ and so a summary of points already made scores 0 marks. Marks: Question requires discussion; always plural of each argument, and always requires conclusion. 1 mark for each advantage/disadvantage (however detailed) and related to the question up to 4 max. 2 marks max for two strengths/weaknesses unrelated to the question. 1 mark for conclusion.	5

Question	Answer	Marks
Section B: Design question (a) = 10 marks, (b) = 8 marks		
5(a)	Design an experiment to investigate the effectiveness of covert sensitisation for treating kleptomania. Marks: use generic levels of response Design a study question part (a). Additional: Candidates should design the study showing evidence of design features appropriate to the named method. The named method is: any appropriate method. Specific features: • Experiments: type, IV, DV, controls, experimental design. • Observations: type, setting, response categories, sampling frame, number of observers. • Questionnaires/Interviews: type, setting, example questions. Scoring/rating scale, analysis of responses. • Case study: participant, length of study/longitudinal, methods used. General features of research methodology: sampling technique and sample, type of data, ethics, reliability, validity, data analysis.	10
5(b)	Explain the psychological and methodological evidence on which your experiment is based. Marks: use generic levels of response 'Design a study' question part (b). NB If only methodological or psychological explanation is provided max 5 marks Candidates are expected to explain the reasons for the suggested design in part (a). Explanation should be both psychological and methodological. Psychological to include appropriate theory or research. Additional: candidates are expected to justify their decisions or evidence presented regarding the design made in answer to question part (a). Syllabus: treating and managing impulse control disorders and non-substance addictive disorder: cognitive-behavioural: covert sensitisation (Glover, 2011) Psychological: Covert sensitisation involves imagining an aversive stimulus such as anxiety-producing imagery (being caught stealing) being paired with the undesirable behaviour to change that behaviour. Covert involves imagery rather than the actual behaviour. NB 2 marks max if psychological knowledge is not related to answer. Methodological: explanation of method using general and specific features as above.	8

Question	Answer	Marks
6(a)	Design a study to investigate whether males are ‘raider’ type shoppers and females are ‘explorer’ type shoppers. Marks: use generic levels of response Design a study question part (a). Additional: Candidates should design the study showing evidence of design features appropriate to the named method. The named method is: any appropriate method. Specific features: • Experiments: type, IV, DV, controls, experimental design. • Observations: type, setting, response categories, sampling frame, number of observers. • Questionnaires/Interviews: type, setting, example questions. Scoring/rating scale, analysis of responses. General features of research methodology: sampling technique and sample, type of data, ethics, reliability, validity, data analysis.	10
6(b)	Explain the psychological and methodological evidence on which your study is based. Marks: use generic levels of response ‘Design a study’ question part (b). NB If only methodological or psychological explanation is provided max 5 marks Candidates are expected to explain the reasons for the suggested design in part (a). Explanation should be both psychological and methodological. Psychological to include appropriate theory or research. Additional: candidates are expected to justify their decisions or evidence presented regarding the design made in answer to question part (a). Syllabus: shopper movement patterns (Gil et al., 2009) Psychological: The Raider walks fast, makes decisions quickly and has a preference for main aisles. Raiders go far into the store if necessary, on ‘top-up’ or ‘food for tonight’ missions. Most Raiders are male. The Explorer: shoppers making the longest trips, going everywhere more than once, slowly, with long interactions with the products and buying a lot. They cover all the aisles in the store, on a ‘main’ shopping mission. NB 2 marks max if psychological knowledge is not related to answer. Methodological: explanation of method using general and specific features as above.	8

Question	Answer	Marks
7(a)	Design a study to investigate age differences in the disclosure of medical information to a health practitioner. Marks: use generic levels of response Design a study question part (a). Additional: Candidates should design the study showing evidence of design features appropriate to the named method. The named method is: any appropriate method. Specific features: • Experiments: type, IV, DV, controls, experimental design. • Observations: type, setting, response categories, sampling frame, number of observers. • Questionnaires/Interviews: type, setting, example questions. Scoring/rating scale, analysis of responses. General features of research methodology: sampling technique and sample, type of data, ethics, reliability, validity, data analysis.	10
7(b)	Explain the psychological and methodological evidence on which your study is based. Marks: use generic levels of response ‘Design a study’ question part (b). NB If only methodological or psychological explanation is provided max 5 marks Candidates are expected to explain the reasons for the suggested design in part (a). Explanation should be both psychological and methodological. Psychological to include appropriate theory or research. Additional: candidates are expected to justify their decisions or evidence presented regarding the design made in answer to question part (a). Syllabus: disclosure of information (Robinson and West, 1992) Psychological: Robinson and West (1992) studied patients attending a sexually transmitted disease centre. symptoms recorded: (i) a computerised interview, (ii) a paper questionnaire (iii) a ‘standard physician interview’. More information was given to a computer than the paper questionnaire and both these methods was better than in a face-to-face consultation with a doctor. NB 2 marks max if psychological knowledge is not related to answer. Methodological: explanation of method using general and specific features as above.	8

Question	Answer	Marks
8(a)	Design a study to investigate how colour of lighting in a factory affects productivity level. Marks: use generic levels of response Design a study question part (a). Additional: Candidates should design the study showing evidence of design features appropriate to the named method. The named method is: any appropriate method. Specific features: • Experiments: type, IV, DV, controls, experimental design. • Observations: type, setting, response categories, sampling frame, number of observers. • Questionnaires/Interviews: type, setting, example questions. Scoring/rating scale, analysis of responses. General features of research methodology: sampling technique and sample, type of data, ethics, reliability, validity, data analysis.	10
8(b)	Explain the psychological and methodological evidence on which your study is based. Marks: use generic levels of response ‘Design a study’ question part (b). NB If only methodological or psychological explanation is provided max 5 marks Candidates are expected to explain the reasons for the suggested design in part (a). Explanation should be both psychological and methodological. Psychological to include appropriate theory or research. Additional: candidates are expected to justify their decisions or evidence presented regarding the design made in answer to question part (a). Syllabus: Physical and psychological work conditions: physical: The Hawthorne studies (Wikstrom and Bendix, 2000) Psychological: Hawthorne studies – where workers increased production because management, who changed the lighting, were observing them. NB 2 marks max if psychological knowledge is not related to answer. Methodological: explanation of method using general and specific features as above.	8

Question	Answer	Marks
Section C: Evaluation question = 12 marks		
9	<i>‘Telephone-administered cognitive-behavioural therapy (CBT) to treat obsessive-compulsive disorder (OCD) will never be as effective as face-to-face treatment.’</i> To what extent do you agree with this statement? Use examples of research you have studied to support your answer. Marks: use generic levels of response in table C. Syllabus: treatment and management of O-C and related disorders: psychological: cognitive (Lovell et al., 2006) and exposure and response prevention (Lehmkuhl et al., 2008) Most likely (any other appropriate responses should be credited): Just as effective: • no travelling time to see the therapist • takes less time – 30 mins on phone • person at home is more comfortable being in their familiar environment; is less stressful than in an office • therapy and procedures are exactly the same Not as effective: • no non-verbal communication • verbal communication may be restricted (may talk for longer if face-to-face but not on telephone) • therapist can’t review materials (such as homework diary) • therapist can’t control the environment such as no distractions in an office, but may be lots at home	12

Question	Answer	Marks
10	<i>Satisficing is the only model needed to explain consumer decision-making.</i> To what extent do you agree with this statement? Use examples of research you have studied to support your answer. Marks: use generic levels of response in table C. Syllabus: models: utility theory, satisficing, prospect theory Most likely (any other appropriate responses should be credited): Only model: • satisficing (Simon, 1956) combines ‘satisfy’ and ‘sufficient’, the only two terms needed in decision-making, making the model simple: ‘why continue searching for an item when this one will do’ • it cuts out the time needed to make a decision, unlike utility theory where people consider all options before deciding on one eventually • unlike utility theory, which assumes that people can consistently rank order their options based on their preferences, this model eliminates this aspect Not only model • it assumes decisions can be made quickly and simply. Some decisions can, but others cannot. • it is a nice theory but does not explain the processes most people go through • it applies to consumer decision-making but it is of no help to the seller who tries to persuade an undecided person to make a decision • prospect theory goes beyond this model suggesting that the value needs to be taken into account	12

Question	Answer	Marks
11	<i>'It does not matter whether patients understand the medical terms their doctor uses. In order to get better, they just have to do what their doctor tells them.'</i> To what extent do you agree with this statement? Use examples of research you have studied to support your answer. Marks: use generic levels of response in table C. Syllabus: practitioner style: doctor and patient-centred (Byrne and Long, 1976, Savage and Armstrong, 1990). McKinlay (1975) Most likely (any other appropriate responses should be credited): Agree - the patient may use vague terms, e.g. 'it's really bad', and may not use words understood by a practitioner - the practitioner may use complex words and the patient may not understand, or need to understand - studies have shown that some people prefer a doctor-centred approach Disagree: - the patient knows how they feel and knows the type of pain, for example, they are experiencing. - the patient needs to ask about their treatment and the practitioner answer any question that may be asked. - studies have shown that some people prefer a patient-centred approach	12

Question	Answer	Marks
12	<i>‘The two-factor theory of job satisfaction is too reductionist to be useful.’</i> To what extent do you agree with this statement? Use examples of research you have studied to support your answer. Marks: use generic levels of response in table C. Syllabus: theories of job satisfaction: two factor theory (Herzberg, 1959) Most likely (any other appropriate responses should be credited): Reductionist: • Job satisfaction is broken down into two components (hygiene and motivational) and then each of these is further broken down into five or more factors. • Breaking down allows each factor to be studied in more detail (e.g. isolating IV and controlling other factors) • Different factors should be broken down i.e. satisfiers and dissatisfiers because they are different. Not reductionist: • Breaking down into individual aspects may lose sight of overall model (job satisfaction) • Breaking down may not lead to a consideration of how each factor is inter-related with the others • There may be many, many more factors that are discovered at a later date and so this model is only a little bit reductionist.	12



Cambridge International AS & A Level

PSYCHOLOGY

9990/43

Paper 4 Specialist Options: Applications

May/June 2020

MARK SCHEME

Maximum Mark: 60

Published

Students did not sit exam papers in the June 2020 series due to the Covid-19 global pandemic.

This mark scheme is published to support teachers and students and should be read together with the question paper. It shows the requirements of the exam. The answer column of the mark scheme shows the proposed basis on which Examiners would award marks for this exam. Where appropriate, this column also provides the most likely acceptable alternative responses expected from students. Examiners usually review the mark scheme after they have seen student responses and update the mark scheme if appropriate. In the June series, Examiners were unable to consider the acceptability of alternative responses, as there were no student responses to consider.

Mark schemes should usually be read together with the Principal Examiner Report for Teachers. However, because students did not sit exam papers, there is no Principal Examiner Report for Teachers for the June 2020 series.

Cambridge International will not enter into discussions about these mark schemes.

Cambridge International is publishing the mark schemes for the June 2020 series for most Cambridge IGCSE™ and Cambridge International A & AS Level components, and some Cambridge O Level components.

This document consists of **22** 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 descriptors 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.

Section A: Stimulus (Generic response descriptor)		
(a)	0–2	1 mark for basic answer e.g. identification. 1 mark for elaboration/example.
(b)	0–4	Question always requires two ‘things’ 1 mark basic answer. 2 marks elaboration. Max 2 marks if only ‘one’ is answered.
(c)	0–4	Questions require either one or two ‘things’ If two: 1 mark basic answer. 2 marks elaboration. If one: 1–2 marks basic answer. 3–4 marks detailed answer/elaboration. If two required and only one provided, max 2 marks.
(d)	0–5	Question requires discussion . Question always plural of each argument. Question always requires conclusion. 1 mark for each for/against argument (however detailed) up to 4 max. 1 mark for conclusion. N.B. If three (or more) arguments for one side, best two credited. If one side only, max 2 marks.
0	0	No response worthy of credit.

Section B: Design a study question part (a) (Generic response descriptor)		
Level	Marks	Level Descriptor
4	9–10	- The design is appropriate to the named investigation and is based on thorough psychological knowledge. - The design is accurate, coherent and detailed, and it tests the proposed investigation competently. - Four or five design features are included. The features are clearly applied to the design throughout the answer and the candidate clearly understands the main features involved in designing an investigation. - The response has proposed an appropriate design, has applied a range of relevant methodological design features with competence and shown clear understanding.
3	7–8	- The design is appropriate to the named investigation and is based on good psychological knowledge. - The design is accurate, coherent and detailed, and it tests the proposed investigation competently. - Two or three design features are included. The features are often applied to the design and the candidate shows good understanding in places. - The response has proposed an appropriate design, has applied some relevant methodological design features and has shown good understanding.
2	4–6	- The design is mostly appropriate to the named investigation and is based on psychological knowledge. - The design is mostly accurate, coherent and detailed in places and it tests the proposed investigation. - Design features are limited in their understanding.
1	1–3	- The design may not be appropriate to the named investigation and use of terminology is sparse or absent. Basic psychological understanding is shown. - The design lacks coherence and is limited in understanding. - One or two appropriate design features are identified but incorrectly applied. The response lacks detail. The candidate describes the study listed on the syllabus.
0	0	No response worthy of credit.

Section B: Explain a study question part (b) (Generic response descriptor)		
Level	Marks	Level Descriptor
3	6–8	• Quality and depth of explanation is thorough. • Description of knowledge is accurate, coherent and detailed. • Use of terms is accurate and use of psychological terminology is comprehensive. • Understanding of methodology (such as elaboration, use of example, quality of description) is very good. • The design is effectively explained in relation to the topic area. • There is a balance of methodology and topic area/relevant study knowledge.
2	4–5	• Quality of explanation and depth of explanation is competent. • Description of knowledge is mainly accurate, coherent and reasonably detailed. • Use of terms is mainly accurate and use of psychological terminology is competent. • Understanding of methodology (such as elaboration, use of example, quality of description) is good. • The design is adequately explained in relation to the topic area. • There is an imbalance of methodology and topic area/relevant study knowledge. • Max 5 marks if only methodological or psychological decisions.
1	1–3	• Quality of explanation and depth of explanation is basic. • Description of knowledge is often accurate, generally coherent, but lacks detail. • Use of terms is basic and use of psychological terminology is adequate. • Understanding of methodology (such as elaboration, use of example, quality of description) is limited. • The design is poorly explained in relation to the topic area. • There is an imbalance of methodology and topic area/relevant study knowledge.
0	0	• No response worthy of credit

Section C: Essay/Evaluate (Generic response descriptor)		
Level	Marks	Level Descriptor
N.B.: Questions are always worded in the same way: ‘to what extent do you agree with this statement? Use examples of research you have studied to support your answer’. However, the words ‘research’ must be taken in the widest sense: (i) different examples can be used from the same piece of research; (ii) examples from different pieces of research; (iii) examples from methodology, such as a specific method or technique; (iv) examples from methodological issues such as ethics, generalisations, quantitative/qualitative data; psychological versus physiological, etc. (v) examples of debates and issues such as reductionism & holism; individual & situational, etc.		
4	10–12	• Both sides of the argument are considered and are relevant to the question. • Appropriate examples are included which fully support both sides. • Discussion is detailed with good understanding and clear expression. • A conclusion is drawn with appropriate justification.
3	7–9	• Both sides of the argument are considered and are relevant to the question. They may be imbalanced in terms of quality or quantity. • Some examples are included, are appropriate and often support both sides. • The answer shows good discussion with reasonable understanding. • A basic conclusion is drawn with little or no justification
2	4–6	• Reasons are limited to one side of the argument/[both sides basic]. • Limited reference to examples, or lack of detail. • The answer shows some understanding. • There is no conclusion.
1	1–3	• Anecdotal discussion, brief detail, minimal relevance. Very limited range. • Discussion may be inaccurate or incomplete. • May evaluate topic area studies, making only indirect reference to the question. • [May describe relevant studies with minimal reference to the question].
0	0	• No response worthy of credit.

Question	Answer	Marks
Section A: Stimulus question Psychology and abnormality		
1	Newspaper headline: Treatment for schizophrenia is successful. Sensky et al. (2000) conducted a longitudinal study and found that cognitive-behavioural therapy was effective. It treated both negative and positive symptoms in patients that were resistant to drug treatments for schizophrenia.	
1(a)	Explain what is meant by the term ‘baseline’ when gathering data. Most likely answer (other appropriate responses to be credited): Gathering baseline data at the outset of a programme allows a comparison with data gathered afterward, allowing changes to be tracked to determine whether any intervention has been effective. Marks: 1 mark basic answer (simple description), 2 marks detailed answer/elaboration.	2
1(b)	Suggest <u>two</u> weaknesses of the longitudinal method in the study by Sensky et al. (2000). Most likely answer (other appropriate responses to be credited): • Participants may drop out over the 9 months of therapy and 9 months of follow-up • Over time, participants may not follow the treatment programme exactly; may take other medications; may develop other symptoms and/or illnesses. Marks: 1 mark generic weakness, 2 marks weakness related to this study ×2	4
1(c)	A randomised controlled design was used by Sensky et al.	
1(c)(i)	Identify the <u>two</u> therapies that this design compared. Most likely answer (other appropriate responses to be credited): • ‘manualized cognitive behavioural therapy developed particularly for schizophrenia with that of a nonspecific befriending control intervention.’ Marks: 1 mark for each correctly identified therapy.	2
1(c)(ii)	Suggest why a randomised controlled design was used. Most likely answer (other appropriate responses to be credited): • Researchers do not allocate participants to conditions so there is no bias. Instead participants are allocated randomly, by chance, so reducing extraneous variables. Use of control group etc. Marks: 1 mark basic answer (identification), 2 marks detailed answer/elaboration	2

Question	Answer	Marks
1(d)	Discuss the strengths and weaknesses of cognitive-behavioural therapy as an alternative to drug treatments for schizophrenia. You should include a conclusion in your answer. Most likely answer (other appropriate responses to be credited): Strengths: • no drugs are taken • the patient does not become addicted to drugs • the patient plays a more active role in their own treatment • a therapist is there to guide the patient through the treatment Weaknesses: • more effort is needed by the patient; it isn't passive as is taking a drug • the cause of schizophrenia may be biochemical and so a drug treatment may be best • a therapist is needed, which costs more and consumes more time than does swallowing a pill Conclusion: any appropriate conclusion drawn from the discussion that has been presented. 1 mark if appropriate. A conclusion is a 'decision reached by reasoning' and so a summary of points already made scores 0 marks. Marks: Question requires discussion; always plural of each argument, and always requires conclusion. 1 mark for each advantage/disadvantage (however detailed) and related to the question up to 4 max. 2 marks max for two strengths/weaknesses unrelated to the question. 1 mark for conclusion.	5

Question	Answer	Marks
Section A: Stimulus question psychology and consumer behaviour		
2	<i>'There has been little attempt to understand the influence on children of branded products that appear in television programs and movies. A study exposed children of two different age groups (6–7 and 11–12) in classrooms to a brief film clip. They were then individually asked to demonstrate their witness skills by describing in as much detail as possible what they had seen.'</i> <i>Extract from the abstract from Auty and Lewis (2004)</i>	
2(a)	Explain what is meant by 'brand recognition'. Most likely answer (other appropriate responses to be credited): Brand recognition is the consumer's ability to recognise a firm from its distinctive logo, motto or artistic symbol. Marks: 1 mark for basic answer, 1 mark for elaboration/example.	2
2(b)	Give the <u>two</u> conclusions from the study by Auty and Lewis (2004). Most likely answer (other appropriate responses to be credited): Quote: 'The responses to the interviews suggest 1 that it is not simply exposure to the film but rather previous exposure together with a reminder in the form of recent exposure that affects choice.' 2 Age (and by implication processing skill) does not appear to be a mediating factor affecting choice, because implicit memory (mere exposure) seems to be more important than explicit recall. Marks: 1 mark basic answer, 2 marks detailed answer/elaboration × 2.	4
2(c)(i)	Give <u>two</u> examples of what Auty and Lewis did to ensure that the ethical guideline of informed consent was followed. Most likely answer (other appropriate responses to be credited): Quote: • 'Within their classes, participants were randomly assigned by their teachers to groups alphabetically by last name' [and so the teachers knew what the study involved]. • 'Prior written permission to offer children a soft drink during a brief interview was obtained from parents.' • 'Parents and teachers were told that children would be asked questions about their observations after they viewed a film clip.' Marks: 1 mark for each correct answer.	2

Question	Answer	Marks
2(c)(ii)	Suggest <u>one</u> way in which this study could be considered to be unethical. Most likely answer (other appropriate responses to be credited): • Psychological harm: the children might have been uncomfortable being interviewed by a strange adult; • Right to withdraw: the children may not have understood this, or if they did, may have been afraid to exercise their right. • Debrief: no evidence that this was done: 'Each interview took about 5 minutes after which the child was returned to the classroom and the next one called out'. Marks 0 marks for identifying a guideline. 1 mark for outline; 2 marks for identifying guideline and describing how the suggestion relates to this study.	2
2(d)	Discuss the advantages and disadvantages of using interviews to investigate brand recognition in children. You should include a conclusion in your answer. Most likely answer (other appropriate responses to be credited): Advantages: • interviews allow children to give their viewpoint of the study in full detail • interviews can be done individually, so no embarrassment, etc. • an interview could be unstructured, allowing free interaction; it could be structured allowing researchers to cover 'essential' questions • the interview can be recorded providing evidence of what was said should it be needed Disadvantages: • children may be reluctant to be interviewed but go ahead because it is what the adult wants • children may not tell the truth, hiding information or modifying it • children may misunderstand questions Conclusion: any appropriate conclusion drawn from the discussion that has been presented. 1 mark if appropriate. A conclusion is a 'decision reached by reasoning' and so a summary of points already made scores 0 marks. Marks: Question requires discussion; always plural of each argument, and always requires conclusion. 1 mark for each advantage/disadvantage (however detailed) and related to the question up to 4 max. 2 marks max for two strengths/weaknesses unrelated to the question. 1 mark for conclusion.	5

Question	Answer	Marks
Section A: Stimulus question psychology and health		
3	The Wong-Baker faces pain rating scale for children. Fig. 3.1	
3(a)	Explain how the Wong-Baker scale is used to measure pain in children. Most likely answer: Wong-Baker scale is shown to children; children point to the face that reflects their level of pain. Marks: 1 mark basic answer (identification), 2 marks detailed answer/elaboration	2
3(b)(i)	Explain how the test-retest reliability of this scale could be tested. Most likely answer (other appropriate responses to be credited): Repeating the test after a period of time and comparing the results. Quote from study: 'Retesting occurred the day after the initial test except in a few instances when it was done 2 to 4 days later.' Marks: 0 marks for 'doing the test again'. 1 mark for 'repeating again after a period of time', 2 marks for link to study i.e. 2–4 days, or what was tested i.e. 6 different scales, colours and painful events.	2
3(b)(ii)	Suggest <u>one</u> reason why this scale might be less useful with older children than with younger children. Most likely answer (other appropriate responses to be credited): Quote from study: 'the decrease in reliability at age 12 is puzzling.' - One possible explanation may be related to the investigators' perception that the interest of older children decreased during the retest. Therefore, the older subjects may have been less motivated to rate the pain accurately than young children who enthusiastically enjoyed the testing procedure (and so the measure is less useful). - It may also be that young children remembered the pain more acutely than older children (and so the measure is less useful). Obviously, more research is needed to answer the question of declining reliability with age beyond 12 years.' Marks: 1 mark basic answer (identification), 2 marks detailed answer/elaboration.	2

Question	Answer	Marks
3(c)	Suggest <u>two</u> ways in which pain can be measured in children without using a pain rating scale. Most likely answer (other appropriate responses to be credited): • McGill pain Questionnaire (MPQ) – this has some rating scales e.g. Section 4: ‘How strong is your pain?’ (no credit for this aspect), but Section 1 ‘Where is your pain?’ is where patients mark on a drawing where their pain is. Section 2: ‘What does your pain feel like?’ where patients use descriptor words and Section 3: ‘How does your pain change with time?’ can all be credited. • Behavioural/observational measures can involve simply observing a child: facial or audible expression; distorted ambulation; crying, etc. UAB is a rating scale and so scores no marks. • Clinical interview is creditworthy. • The Paediatric Pain Questionnaire (Varni and Thompson, 1976) gets children to pick colours and then colour a box, but the boxes are on a rating scale, so no credit. • No credit for any visual rating scale such as visual analogue scale, box scale, etc. Marks: 1 mark basic answer (e.g. identification of measure), 2 marks detailed answer/elaboration × 2.	4
3(d)	Discuss the advantages and disadvantages of having pain measures specifically for use with children. You should include a conclusion in your answer. Most likely answer (other appropriate responses to be credited): Advantages: • children may be too young to explain their pain/take part in an ‘adult’ clinical interview • children may not understand the questions that are being asked by a medical practitioner (e.g complex language) • children may be nervous about the practitioner or what procedure they have to undergo and so a ‘child-friendly’ colouring task, or row of faces to choose from, may put them at ease. Disadvantages: • the ‘smiley face’ may not translate into actual pain or the type of pain the child is experiencing. It might not be valid. • the smiley face may not be reliable: as the study showed. • the study may not be valid: In the Wong and Baker study children were not in pain when the measures were taken. Taking the measures when the children are in pain may be very different. Conclusion: any appropriate conclusion drawn from the discussion that has been presented. 1 mark if appropriate. A conclusion is a ‘decision reached by reasoning’ and so a summary of points already made scores 0 marks. Marks: Question requires discussion; always plural of each argument, and always requires conclusion. 1 mark for each advantage/disadvantage (however detailed) and related to the question up to 4 max. 2 marks max for two strengths/weaknesses unrelated to the question. 1 mark for conclusion.	5

Question	Answer	Marks																		
Section A: Stimulus question psychology and organisations																				
4	Wedley and Field (1984) proposed that the decision-making process of any group can be improved using a pre-decision support system. Their model of the pre-decision process begins with the manager answering situational questions. Examples of these questions and how they could be answered appear in Table 4.1. <table border="1"> <thead> <tr> <th>Question number</th><th>Questions</th><th>Your answers</th></tr> </thead> <tbody> <tr> <td>1</td><td>Is quality required?</td><td>Yes ~~No~~</td></tr> <tr> <td>2</td><td>Have you sufficient information?</td><td>~~Yes~~ No</td></tr> <tr> <td>3</td><td>Is the problem structured?</td><td>~~Yes~~ No</td></tr> <tr> <td>4</td><td>Is acceptance important?</td><td>Yes ~~No~~</td></tr> <tr> <td>5</td><td>Would your autocratic decision be accepted?</td><td>Yes ~~No~~</td></tr> </tbody> </table>	Question number	Questions	Your answers	1	Is quality required?	Yes ~~No~~	2	Have you sufficient information?	~~Yes~~ No	3	Is the problem structured?	~~Yes~~ No	4	Is acceptance important?	Yes ~~No~~	5	Would your autocratic decision be accepted?	Yes ~~No~~	
Question number	Questions	Your answers																		
1	Is quality required?	Yes ~~No~~																		
2	Have you sufficient information?	~~Yes~~ No																		
3	Is the problem structured?	~~Yes~~ No																		
4	Is acceptance important?	Yes ~~No~~																		
5	Would your autocratic decision be accepted?	Yes ~~No~~																		
4(a)	Explain what is meant by the term ‘pre-decision support system’. Most likely answer (other appropriate responses to be credited): A decision support system (DSS) is a computerised information system used to support decision-making in an organisation or a business. A DSS lets users sift through and analyse massive reams of data and compile information that can be used to solve problems and make better decisions. For Wedley and Field, DSSs deal with less structured situations in which greater management judgement is required. Marks: 1 mark for basic answer. 1 mark for elaboration/example.	2																		
4(b)(i)	Identify the type of questions used to gather the data in Table 4.1. Answer (other appropriate responses to be credited): Closed (ended) questions. Marks: 1 mark for correct identification.	1																		
4(b)(ii)	Identify the type of data gathered in Table 4.1. Answer (other appropriate responses to be credited): - quantitative data (number of yes or no answers) - categorical data (frequencies). - nominal data. Marks: 1 mark for correct identification.	1																		

Question	Answer	Marks
4(c)	Suggest <u>two</u> ways in which a decision support system can improve managerial effectiveness. Most likely answer (other appropriate responses to be credited): Quote from study: 'DSS improve managerial effectiveness by: • Improving personal efficiency by allowing a manager to perform a task in a different way that uses less time or less effort • Expediting problem solving by providing faster turnaround, never insights, better consistency and greater accuracy • Facilitating interpersonal communication both with specific individuals and across organisational boundaries • Fostering learning or training • Improving overall control' Marks: 1 mark basic answer, 2 marks detailed answer/elaboration/example × 2. Equity theory scores no marks.	4
4(d)	Discuss the advantages and disadvantages of gathering data from managers and workers about decision-making in their organisation. You should include a conclusion in your answer. Most likely answer (other appropriate responses to be credited): Advantage: • Workers want to please management and show organisational commitment (e.g. Mowday et al.) • Workers want to impress to show that they are good, efficient workers • Managers want to gather data from their own workers, whom they may know well Disadvantage: • Workers want to go against management showing no organisational commitment (e.g. sabotage) • Workers want to impress to show that they are good, efficient workers and may not tell the truth • Workers may respond to demand characteristics (e.g. Hawthorne effect) • Managers may have a hidden agenda • Managers may know workers and may not report what workers accurately Conclusion: any appropriate conclusion drawn from the discussion that has been presented. 1 mark if appropriate. A conclusion is a 'decision reached by reasoning' and so a summary of points already made scores 0 marks. Marks: Question requires discussion; always plural of each argument, and always requires conclusion. 1 mark for each advantage/disadvantage (however detailed) and related to the question up to 4 max. 2 marks max for two strengths/weaknesses unrelated to the question. 1 mark for conclusion.	5

Question	Answer	Marks
Section B: Design question (a) = 10 marks, (b) = 8 marks		
5(a)	Design a study to investigate which type of phobia the general public think is the <u>most</u> common. Marks: use generic levels of response Design a study question part (a). Additional: Candidates should design the study showing evidence of design features appropriate to the named method. The named method is: any appropriate method. Specific features: • Experiments: type, IV, DV, controls, experimental design. • Observations: type, setting, response categories, sampling frame, number of observers. • Questionnaires/Interviews: type, setting, example questions. Scoring/rating scale, analysis of responses. General features of research methodology: sampling technique and sample, type of data, ethics, reliability, validity, data analysis.	10
5(b)	Explain the psychological and methodological evidence on which your study is based. Marks: use generic levels of response 'Design a study' question part (b). NB If only methodological or psychological explanation is provided max 5 marks Candidates are expected to explain the reasons for the suggested design in part (a). Explanation should be both psychological and methodological. Psychological to include appropriate theory or research. Additional: candidates are expected to justify their decisions or evidence presented regarding the design made in answer to question part (a). Syllabus: characteristics of anxiety disorders: types: agoraphobia and specific phobias (blood phobia, animal phobia, button phobia). Psychological: <i>Types of phobia from various sources: dogs (DiNardo et al.); buttons (Saavedra and Silver); various animals (Watson and Rayner) Horses (little Hans).</i> NB 2 marks max if psychological knowledge is not related to answer. Methodological: explanation of method using general and specific features as above.	8

Question	Answer	Marks
6(a)	Design a study using a questionnaire to investigate whether people prefer a customer-focused approach or a product-focused approach when buying a new car. Marks: use generic levels of response Design a study question part (a). Additional: Candidates should design the study showing evidence of design features appropriate to the named method. The named method is: questionnaire. Specific features: Questionnaires: type, setting, example questions. Scoring/rating scale, analysis of responses. General features of research methodology: sampling technique & sample, type of data, ethics, reliability, validity, data analysis.	10
6(b)	Explain the psychological and methodological evidence on which your study is based. Marks: use generic levels of response ‘Design a study’ question part (b). NB If only methodological or psychological explanation is provided max 5 marks Candidates are expected to explain the reasons for the suggested design in part (a). Explanation should be both psychological and methodological. Psychological to include appropriate theory or research. Additional: candidates are expected to justify their decisions or evidence presented regarding the design made in answer to question part (a). Syllabus: selling the product: sales techniques: customer/competitor/product focused. Psychological: Product-focused: emphasis on the product; special features, design specifications etc., educating the customer about the product; sales person needs excellent knowledge of product. Customer focused: customer viewed as unique so emphasis on customer. Seller asks about customer needs, wants and desires so fit the product to the customer. NB 2 marks max if psychological knowledge is not related to answer. Methodological: explanation of method using general and specific features as above.	8

Question	Answer	Marks
7(a)	Design a study using an interview to investigate what the students in a school understand by the terms ‘acute pain’ and ‘chronic pain’. Marks: use generic levels of response Design a study question part (a). Additional: Candidates should design the study showing evidence of design features appropriate to the named method. The named method is: interview. Specific features: Interviews: type, setting, example questions. Scoring/rating scale, analysis of responses. General features of research methodology: sampling technique & sample, type of data, ethics, reliability, validity, data analysis.	10
7(b)	Explain the psychological and methodological evidence on which your study is based. Marks: use generic levels of response ‘Design a study’ question part (b). NB If only methodological or psychological explanation is provided max 5 marks Candidates are expected to explain the reasons for the suggested design in part (a). Explanation should be both psychological and methodological. Psychological to include appropriate theory or research. Additional: candidates are expected to justify their decisions or evidence presented regarding the design made in answer to question part (a). Syllabus: types and theories of pain: definitions of pain: acute and chronic organic pain; psychogenic pain (phantom limb pain) Psychological: • Acute pain: short-term, temporary (e.g. finger trapped in a door) • Chronic pain: long term (3 months or more) e.g. arthritis. NB 2 marks max if psychological knowledge is not related to answer. Methodological: explanation of method using general and specific features as above.	8

Question	Answer	Marks
8(a)	Design a study using observations to investigate which followership type is the <u>most</u> common in an organisation producing toys. Marks: use generic levels of response Design a study question part (a). Additional: Candidates should design the study showing evidence of design features appropriate to the named method. The named method is: observation. Specific features: Observations: type, setting, response categories, sampling frame, number of observers. General features of research methodology: sampling technique & sample, type of data, ethics, reliability, validity, data analysis.	10
8(b)	Explain the psychological and methodological evidence on which your study is based. Marks: use generic levels of response ‘Design a study’ question part (b). NB If only methodological or psychological explanation is provided max 5 marks Candidates are expected to explain the reasons for the suggested design in part (a). Explanation should be both psychological and methodological. Psychological to include appropriate theory or research. Additional: candidates are expected to justify their decisions or evidence presented regarding the design made in answer to question part (a). Syllabus: leaders and followers: followership: qualities of and types (Kelley, 1988) Psychological: <i>Kelley (1988) outlines five styles:</i> • Conformist followers (‘the yes people’) allow leaders to think and act and are positive and on the leader’s side. • Alienated followers: predominantly negative; think for themselves but do not contribute to direction of the organisation. • Passive followers (‘the sheep’) passive thinking and engagement; motivated by their leader rather than themselves. • Pragmatist followers minimal level of independent thinking and engagement; change to suit the situation • Exemplary (‘star’) followers think for themselves, have positive energy, and are actively engaged. NB 2 marks max if psychological knowledge is not related to answer. Methodological: explanation of method using general and specific features as above.	8

Question	Answer	Marks
Section C: Evaluation question = 12 marks		
9	<i>‘Symptom assessment of schizophrenia using virtual reality will one day remove the need for a doctor.’</i> To what extent do you agree with this statement? Use examples of research you have studied to support your answer. Marks: use generic levels of response in table C. Syllabus: Characteristics of schizophrenia: symptom assessment using virtual reality Most likely (any other appropriate responses should be credited): No doctor: - patients sometimes prefer to give more personal details to a computer (e.g. Robinson and West) - patients can interact with a computer/VR in a situation and show how they would actually behave rather than try to describe it to a doctor ‘The practitioner has no idea of how the patient actually behaves in the real world (or whether they are telling the truth)’ - patients can be dishonest to a doctor, but may be honest as the VR situation demands - in the future computers/VR may be able to interpret symptoms and diagnose also. Doctor: - the doctor will always need to interpret behaviour and diagnose - the doctor will always need to prescribe appropriate medication (if deemed most suitable) - the doctor has experience and that can never be programmed into a computer - the doctor can ask questions as they arise; a computer/VR cannot ‘interact’	12

Question	Answer	Marks
10	<i>‘The theory of planned behaviour: if you plan to buy and you intend to buy, you definitely will buy.’</i> To what extent do you agree with this statement? Use examples of research you have studied to support your answer. Marks: use generic levels of response in table C. Syllabus: purchase decisions: theory of planned behaviour (Ajzen, 1991) Most likely (any other appropriate responses should be credited): Support: • The model proposes that intentions (to purchase) automatically lead to behaviour (purchase). • The model has much supporting evidence: predictive of the purchase of a specific brand of grape drink (Bonfield, 1974), and toothpaste (Wilson, et al., 1975). • The model is said to apply in all cultures e.g. Bagozzi et al. (2000) Does not support: • Although the model proposes that intentions automatically lead to behaviour, this is not always the case. What people say and what they do is sometimes different. • There are always individual differences (e.g. as there are different types of shopper) and so there will also be cultural differences • The model is too general: whilst it might apply to some things (e.g. health behaviour) it might not apply to other things (such as consumer behaviour) • There are alternative models, such as the black-box model and the consumer decision model.	12

Question	Answer	Marks
11	<i>‘Health promotion strategies developed in one country, such as those in the five city project (Farquhar et al., 1985), can never generalise to other countries.’</i> To what extent do you agree with this statement? Use examples of research you have studied to support your answer. Marks: use generic levels of response in table C. Syllabus: health promo in schools, worksites & communities: communities (five city project, Farquhar et al., 1985) Most likely (any other appropriate responses should be credited): Only USA: • The USA has obesity and poor heart health, unlike many other countries in the world. • The USA has, perhaps, a greater number of people exposed to appropriate media, such as television. • The USA has many cities of approx. equal size so comparisons between cities can be made. Other countries may not have comparable cities/villages. Worldwide: • All countries need their inhabitants to improve their health in order to live longer • The techniques of health promotion, in general, are the same everywhere (fear arousal and providing information) • The measures taken in the five city project are physiological and so are reliable and the same measures can be taken anywhere on anyone.	12

Question	Answer	Marks
12	<i>‘Errors in group decision-making are always due to the cognitive limitations of an individual rather than to being part of a groupthink situation.’</i> To what extent do you agree with this statement? Use examples of research you have studied to support your answer. Marks: use generic levels of response in table C. Syllabus: Decision-making: cognitive limitations and errors (Forsyth, 2006); groupthink (Janis, 1971) and strategies to avoid groupthink. Most likely (any other appropriate responses should be credited): Individual: • People are sometimes limited in their understanding; they sometimes make ‘sins of commission’: belief perseverance, for example • People are sometimes poor in socially interacting in groups • People sometimes have a particular type of personality less cohesive to group dynamics • People will sometimes have ‘interpersonal conflict’ with other group members Situational • Groupthink itself is the result of situational/group rather than individual decision-making • Individuals may want to ‘impress the boss’ and so agree with group decisions rather than questioning them • Conflict created by raising questions might harm group cohesiveness.	12