

# **Cambridge International AS & A Level**

#### PSYCHOLOGY

Paper 4 Specialist Options: Application MARK SCHEME Maximum Mark: 60 9990/41 May/June 2021

Published

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

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

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### Generic Marking Principles

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level 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.

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

1	Co •	<b>mponents using point-based marking:</b> Point marking is often used to reward knowledge, understanding and application of skills. We give credit where the candidate's answer shows relevant knowledge, understanding and application of skills in answering the question. We do not give credit where the answer shows confusion.
	Frc	om this it follows that we:
	а	DO credit answers which are worded differently from the mark scheme if they clearly convey the same meaning (unless the mark scheme requires a specific term)
	b	DO credit alternative answers/examples which are not written in the mark scheme if they are correct
	С	DO credit answers where candidates give more than one correct answer in one prompt/numbered/scaffolded space where extended writing is required rather than list-type answers. For example, questions that require <i>n</i> reasons (e.g. State two reasons).
	d	DO NOT credit answers simply for using a 'key term' unless that is all that is required. (Check for evidence it is understood and not used wrongly.)
	е	DO NOT credit answers which are obviously self-contradicting or trying to cover all possibilities
	f	DO NOT give further credit for what is effectively repetition of a correct point already credited unless the language itself is being tested. This applies equally to 'mirror statements' (i.e. polluted/not polluted).
	g	DO NOT require spellings to be correct, unless this is part of the test. However spellings of syllabus terms must allow for clear and unambiguous separation from other syllabus terms with which they may be confused (e.g. Corrasion/Corrosion)
2	Pre	esentation of mark scheme:
	٠	Slashes (/) or the word 'or' separate alternative ways of making the same point.
	•	Semi colons (;) bullet points (•) or figures in brackets (1) separate different points. Content in the answer column in brackets is for examiner information/context to clarify the marking but is not required to earn the mark (except Accounting syllabuses where they
		indicate negative numbers).
3	Anr	notation:
	•	For point marking, ticks can be used to indicate correct answers and crosses can be used to indicate wrong answers. There is no direct relationship between ticks and marks. Ticks have no defined meaning for levels of response marking.
	•	For levels of response marking, the level awarded should be annotated on the script. Other annotations will be used by examiners as agreed during standardisation, and the meaning will be understood by all examiners who marked that paper.

		Section A: Stimulus (Generic response descriptor)
(a)	0–2	<ol> <li>1 mark for basic answer e.g. identification.</li> <li>1 mark for elaboration/example.</li> </ol>
(b)	0–4	Questions have one or two requirements If 1 mark for one aspect: [1 mark max] 1 mark for identification or statement.
(c)	0—4	<ul> <li>If 2 marks for two aspects: [2 + 2 marks]</li> <li>1 mark basic answer. 2 marks elaboration x2.</li> <li>If 4 marks for one aspect: [4 marks]</li> <li>1–2 marks basic answer. 3–4 marks detailed answer/elaboration.</li> <li>Partial answers score half marks (i.e. 4 to 2 or 2 to 1)</li> </ul>
(d)	0–5	<ul> <li>Question requires discussion. Question always plural of each argument.</li> <li>Question always requires conclusion.</li> <li>1 mark for each for/against argument (however detailed) up to 4 max. 1 mark for conclusion.</li> <li>Note: If three (or more) arguments for one side, best two credited. If one side only, max 2 marks.</li> </ul>
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	<ul> <li>The design is appropriate to the named investigation and is based on thorough psychological knowledge.</li> <li>The design is accurate, coherent and detailed, and it tests the proposed investigation competently.</li> <li>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.</li> <li>The response has proposed an appropriate design, has applied a range of relevant methodological design features with competence and shown clear understanding.</li> </ul>			
3	7–8	<ul> <li>The design is appropriate to the named investigation and is based on good psychological knowledge.</li> <li>The design is accurate, coherent and detailed, and it tests the proposed investigation competently.</li> <li>Two or three design features are included. The features are often applied to the design and the candidate shows good understanding in places.</li> <li>The response has proposed an appropriate design, has applied some relevant methodological design features and has shown good understanding.</li> </ul>			
2	4–6	<ul> <li>The design is mostly appropriate to the named investigation and is based on psychological knowledge.</li> <li>The design is mostly accurate, coherent and detailed in places and it tests the proposed investigation.</li> <li>Design features are limited in their understanding.</li> </ul>			
1	1–3	<ul> <li>The design may not be appropriate to the named investigation (wrong method or incorrect variables)</li> <li>Use of terminology is sparse or absent. Basic psychological understanding is shown.</li> <li>The design lacks coherence and is limited in understanding.</li> <li>One or two appropriate design features are identified but incorrectly applied.</li> <li>The response lacks detail.</li> </ul>			
0	0	No response worthy of credit. The candidate describes the study listed on the syllabus.			

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

	Section C: Essay/Evaluate (Generic response descriptor)				
Level	Marks	Level Descriptor			
statemen words 're same pie methodol such as e	<b>Note:</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	<ul> <li>Both sides of the argument are considered and are relevant to the question.</li> <li>Appropriate examples are included which fully support both sides.</li> <li>Discussion is detailed with good understanding and clear expression.</li> <li>A conclusion is drawn with appropriate justification.</li> </ul>			
3	7–9	<ul> <li>Both sides of the argument are considered and are relevant to the question.</li> <li>They may be imbalanced in terms of quality or quantity.</li> <li>Some examples are included, are appropriate and often support both sides.</li> <li>The answer shows good discussion with reasonable understanding.</li> <li>A basic conclusion is drawn with little or no justification</li> </ul>			
2	4–6	<ul> <li>Reasons are limited to one side of the argument.</li> <li>Limited reference to examples, or lack of detail.</li> <li>The answer shows some understanding.</li> <li>There is no conclusion.</li> </ul>			
1	1–3	<ul> <li>Anecdotal discussion, brief detail, minimal relevance. Very limited range.</li> <li>Discussion may be inaccurate or incomplete.</li> <li>Describes (and evaluates) topic area study(s), making only indirect reference to the question.</li> </ul>			
0	0	No response worthy of credit.			

Question	Answer	Marks
	Section A: Stimulus question Psychology and abnormality	
1	Griffiths (2005) refers to a case of a person addicted to gambling who says: 'If I wasn't actually gambling I was spending the rest of my time working out clever little schemes to obtain money to feed my habit. These two activities literally took up all my time'. This quote is typical of gambling and many other types of addictive behaviours, including pyromania and kleptomania.	
1(a)	<ul> <li>Explain what is meant by 'pyromania'.</li> <li>Most likely answer (other appropriate responses to be credited): <ul> <li>Where the person has deliberately and intentionally set fires on more than one occasion.</li> <li>Experiences tension or affective arousal before the act.</li> <li>Has a fascination with, interest in, curiosity about, or attraction to fire and its situational contexts (e.g., paraphernalia, uses, and consequences).</li> <li>Pleasure, gratification, power or relief when setting fires or when witnessing or participating in their aftermath.</li> <li>The fire-setting is not done for monetary gain, as an expression of socio-political ideology, to conceal criminal activity, to express anger or vengeance, to improve one's living circumstances, in response to a delusion or hallucination, or as a result of impaired judgment.</li> </ul> </li> <li>The fire-setting is not explained by conduct disorder, a manic episode, or antisocial personality disorder.</li> </ul>	2
	<b>Marks: 1 mark</b> for basic answer (likes setting fires), 2 marks for detail/elaboration/example (as indicated above)	

Question	Answer	Marks
1(b)	Give <u>two</u> components of any addiction outlined by Griffiths (2005).	4
	<ul> <li>Most likely answers:</li> <li>Salience when the particular activity becomes the most important activity in the person's life and dominates their thinking (preoccupations and cognitive distortions), feelings (cravings) and behaviour (deterioration of socialised behaviour)</li> <li>Mood modification/euphoria the subjective experience that people report as a consequence of engaging in the particular activity (i.e. an arousing 'buzz' or a 'high')</li> <li>Tolerance the process whereby increasing amounts of the particular activity are required to achieve the former effects</li> <li>Withdrawal symptoms the unpleasant feeling states and/or physical effects which occur when the particular activity is discontinued or suddenly reduced</li> <li>Conflict conflicts between the addict and those around them (interpersonal conflict) or from within the individual themselves (intrapsychic conflict)</li> <li>Relapse the tendency for repeated reversions to earlier patterns of the particular activity to recur</li> <li>Note: answer does not have to be related to any example, although examples receive credit.</li> <li>Marks: 1 mark basic answer (identification component), 2 marks detail/elaboration/example X2.</li> </ul>	
1(c)	Suggest <u>two</u> ways to measure a person's addiction to gambling, other than using a questionnaire.	4
	<ul> <li>Most likely answer (other appropriate responses to be credited):</li> <li>Observation (covert or overt; structured; non-participant, natural – or any combination of these</li> <li>Interview (face-to-face or by telephone)</li> <li>Case study (one person with range of methods, or for example the case study of 'Jo' by Griffiths.</li> <li>Physiological measure (such as ECG, GSR, hormone levels)</li> <li>Marks: 1 mark basic answer (identification of method plus a comment about how that method would work. Max 1 mark for each suggestion if not related to gambling), 2 marks related to gambling, X2</li> <li>Some answers may suggest 'anecdotal' measures. Max 1 mark for such answers</li> <li>Note: 0 marks for questionnaires such as Gambling prevalence survey, CPGI, etc</li> <li>Note: 0 marks for interviews/open ended questions that make no reference to measurement.</li> </ul>	

Question	Answer	Marks
1(d)	Discuss the strengths and weaknesses of using questionnaires to measure kleptomania. You should include a conclusion in your answer.	5
	<b>Marks:</b> 1 mark for each strength/weakness (however basic/detailed) <b>which</b> <b>is related/linked</b> to the question (max 4 marks). 1 mark for conclusion. <b>Conclusion:</b> 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.	
	<b>Most likely answer</b> (other appropriate responses to be credited): Strengths:	
	<ul> <li>Asking people directly, using a questionnaire, especially open-ended, means that participants are given the opportunity to express their feelings about stealing and explain their stealing behaviour rather than the researcher trying to work out reasons for this behaviour from other methods</li> </ul>	
	<ul> <li>Relatively large numbers of participants can be done relatively easily in comparison to say a face-to-face interview or experiment. Questionnaires are easy to replicate.</li> </ul>	
	<ul> <li>Data can be qualitative, but may also be quantitative depending on type of question</li> </ul>	
	Weaknesses:	
	• Some participants may provide socially desirable responses; not give truthful answers about their stealing behaviour; respond to demand characteristics.	
	<ul> <li>Closed/fixed-choice questions may force people into choosing answers that do not reflect their true opinion and therefore may lower the validity.</li> <li>Researchers have to be careful about use of leading questions; it could affect the validity of the data collected.</li> </ul>	

Question	Answer	Marks
2	Porublev et al. (2009) gathered qualitative data to investigate whether a gift should be wrapped or not, because of the expectations surrounding the use of gift-wrapping.	
2(a)	Explain the <u>two</u> key expectations surrounding the use of gift-wrapping.	2
2(4)	<ul> <li>Definitive answer: (Quoting study)</li> <li>There are two key expectations surrounding the use of gift wrapping.</li> <li>the first expectation is that receivers prefer gifts to be wrapped and</li> <li>that the gift meets individual and social expectations of what a gift should look like.</li> <li>Marks: 1 mark for 'it is wrapped' +1 mark for 'it looks like a gift' Note: 0 marks for 'who it is for'; 'where the gift is going'; 'what the occasion is'</li> </ul>	-
2(b)	Porublev et al. only collected qualitative data.	4
	<ul> <li>Give two ways in which qualitative data was gathered in this study.</li> <li>Definitive answer Quoting study Data was gathered using three qualitative techniques; <ul> <li>observation (1 mark) of a Christmas gift-wrap stall (2 marks)</li> <li>interviews (1 mark) twenty in-depth interviews to reflect on giftwrapping (2 marks)</li> </ul> </li> <li>projective workshops (1 mark) where, in pairs, participants were asked to wrap two gifts, one for someone they are close to and the other for an acquaintance, and have a discussion about gift wrapping whilst doing so (2 marks)</li> </ul> Marks: 1 mark basic answer (identification), 2 marks detailed answer/elaboration or use of example (as in brackets above) X2.	
2(c)(i)	Explain what is meant by the term 'reliability'.	2
	<ul> <li>Definitive answer (other appropriate responses to be credited):</li> <li>1 mark basic answer e.g. reliability means consistency</li> <li>+1 mark: any elaboration or example e.g. reliability is the extent to which a procedure, task or measure produces the same results on different occasions. Alternatively, same measure is tested at a later date on same participant (i.e. test-retest); two or more independent observers are reliable (consistent) in giving the same score to the same behaviour Note: 0 marks for 'being trustworthy', repeating a study, or replication.</li> </ul>	

Question	Answer	Marks
2(c)(ii)	Suggest how the reliability of the qualitative data gathered in this study could be assessed.	2
	<ul> <li>Most likely answer (other appropriate responses to be credited):</li> <li>inter-rater reliability, where two or more independent judges or raters assess what is said in the interview, or what is observed, for example. This could be done with predefined response categories and the extent of agreement recorded.</li> </ul>	
	<b>Note:</b> no marks for test-retest. <b>Marks:</b> 1 mark basic answer, 2 marks example from 'this study' See <b>Q2(b)</b> for examples of what the qualitative data might be.	
2(d)	Discuss the advantages and disadvantages of using qualitative data to assess gift-wrapping preference. You should include a conclusion in your answer.	5
	<b>Marks:</b> 1 mark for each advantage/disadvantage (however basic/detailed) which is related/linked to the question (max 4 marks). 1 mark for conclusion.	
	<b>Conclusion:</b> 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.	
	<b>Most likely answer</b> (other appropriate responses to be credited, such as eye movement patterns): Advantages	
	<ul> <li>Asking people directly means that participants are given the opportunity to express their feelings and explain their experiences rather than the researcher trying to work out reasons for their behaviour from other methods</li> </ul>	
	<ul> <li>People can give as much information as they wish about their gift-wrapping preferences, but they can also say little or nothing if they wish.</li> <li>Data can be qualitative, but may also be quantitative depending on type of question</li> </ul>	
	<ul> <li>Disadvantages</li> <li>Some participants may provide socially desirable responses about their gift-wrapping preferences; not give truthful answers; respond to demand</li> </ul>	
	<ul> <li>characteristics.</li> <li>Qualitative data tends not to lead to the calculation of statistics to allow comparison.</li> </ul>	
	• Researchers have to be careful about use of leading questions; it could affect the validity of the data collected.	

Question	Answer	Marks
3	Newspaper headline: Doctors with a directing style give more satisfaction. Savage and Armstrong (1990) studied patient satisfaction with different consultation styles. Patients who received a directing style consultation reported significantly higher levels of satisfaction on almost all measures, compared with those who received a sharing style consultation.	
3(a)	<ul> <li>Explain what method was used to assess patient satisfaction in the study by Savage and Armstrong (1990).</li> <li>Most likely (quotes from study)</li> <li>Patients' satisfaction was measured by a questionnaire completed by the patients that asked about the quality of communication in the consultation and thoughts after the consultation was over.</li> <li>The patient was asked to complete the questionnaire in the waiting room and give it to the receptionist before leaving the surgery. A second questionnaire with a stamped addressed envelope was then given to each patient with instructions to fill it in and post it after one week.</li> <li>Marks: 1 mark identification of questionnaire, 2 marks for elaboration/example (after the consultation was over/after one week)</li> <li>Note: 0 marks for interview or any other method. Do not credit 'self-report' as this is too vague.</li> </ul>	2
3(b)	<ul> <li>Explain two reasons why the number of participants used in the analysis of results was lower than the original number of participants.</li> <li>Most likely answer (other appropriate responses to be credited): Quoting from study</li> <li>Overall, 359 patients were invited to take part in the study.</li> <li>4 declined to participate (did not give consent or withdrew)</li> <li>5 were excluded (reasons included schizophrenia and manic depression)</li> <li>30 patients failed to complete the initial assessment (in the waiting room)</li> <li>120 failed to complete the assessment a week later (the postal questionnaire).</li> </ul> Marks: 1 mark for: basic statement, 2 marks for elaboration/example Note: numbers not needed to score full marks; approximate numbers are acceptable when quoted. Note: withdrawal/consent are same point, so 1 mark if both identified.	4

Question	Answer	Marks
3(c)(i)	Participants were randomly selected to participate in the study.	2
	Explain why this was important.	
	<b>Most likely answer</b> Random selection ensures that all members of the target population have an equal chance of participating (1 mark) because 'a random number generator was used to select, in advance, four patients for the study from each surgery held by one general practitioner (RS) over four months' (+1 mark).	
	There is no selection bias/everyone has an equal chance of participating (1 mark) by the doctor/researcher, or any link to this study. (+1 mark)	
	<b>Marks:</b> 1 mark for importance, 1 mark for relating to study (however briefly). Note: makes it more generalisable (0 marks) but with explanation (1 mark)	
3(c)(ii)	Participants were randomly allocated to a directing or a sharing style.	2
	Explain why this was important.	
	<b>Most likely answer</b> Random allocation ensures that all participants have an equal chance of being allocated to either condition (1 mark) 'A set of cards was produced to allocate randomly either a directing or a shared style, and these were kept face down on the doctor's desk. The card was turned over only when the patient had completed his or her description of the initial problem and had been identified as suitable for entry to the study' (2 marks)	
	There is no allocation bias (1 mark) by the doctor/researcher (+1 mark) or so the patients don't know what style they will receive (+1 mark)	
	<b>Marks:</b> 1 mark for importance, 1 mark for relating to study (however briefly).	

Question	Answer	Marks
3(d)	Discuss the advantages and disadvantages of using postal questionnaires to gather data about health preferences. You should include a conclusion in your answer.	5
	<ul> <li>Marks: 1 mark for each advantage/disadvantage (however basic/detailed)</li> <li>which is related/linked to the question (max 4 marks). 1 mark for conclusion.</li> <li>Conclusion: any appropriate conclusion drawn from the discussion that has been presented. 1 mark if appropriate. A conclusion is a 'decision reached</li> </ul>	
	<ul> <li>by reasoning' and so a summary of points already made scores 0 marks.</li> <li>Most likely answer (other appropriate responses to be credited): Advantages</li> <li>Full information can be given so better than an interview</li> <li>People can read and complete at their own leisure (in their own home), think about and then make decisions (without pressure from anyone)</li> <li>People may prefer to write personal answers about health preferences rather than tell someone face-to-face</li> </ul>	
	<ul> <li>Disadvantages</li> <li>People may not receive the mailing, or receive it but never read it;</li> <li>people read the information about health preferences but not act on it (or forget to act on it)</li> <li>people may delay acting (appraisal delay etc. re Safer)</li> </ul>	

Question	Answer	Marks
4	In the 1920s, scientific management studies were conducted at the Hawthorne Plant of the Western Electric Company in the United States, which were known as the 'Hawthorne studies'. The aim was to investigate which physical variables could be manipulated to increase production. The findings were not as expected, leading to a conclusion called the 'Hawthorne effect'.	
4(a)	Explain what is meant by the 'Hawthorne effect'.	2
	Most likely answer (other appropriate responses to be credited): Quote from study 'behavioral change due to an awareness of being observed, active compliance with the supposed wishes of researchers because of special attention received, or positive response to the stimulus being introduced.' Alternatively 'a marked increase in production related only to special social position and social treatment'. Alternatively it occurs when people behave differently (1 mark) because they know they are being watched (+1 mark) Marks: 1 mark basic answer 2 marks detailed answer/elaboration/ example. Note: 0 marks for demand characteristics.	
4(b)(i)	Describe the main independent variable (IV).	2
	<ul> <li>Most likely answer (other appropriate responses to be credited): Quote from study</li> <li>'In the initial phase of the studies, the effect of illumination on productivity was examined.</li> <li>The illumination was decreased step by step for the experimental subjects, whilst the controls received constant illumination.'</li> <li>Marks: 1 mark for identifying 'illumination', 2 marks for elaboration of experimental group (illumination decreased step by step) or' illumination change versus constant illumination', 0 marks for 'physical variables' (words are in the question).</li> </ul>	
4(b)(ii)	Describe the dependent variable (DV).	2
	<ul> <li>Most likely answer (other appropriate responses to be credited): Quote from study:</li> <li>'Both sets of subjects slowly but steadily increased their performance of inspecting parts, assembling relays or winding coils'</li> <li>Marks: 1 mark basic answer (performance/productivity), 2 marks detailed answer/elaboration/example (of inspecting parts, assembling relays or winding coils)</li> </ul>	

Question	Answer	Marks
4(c)	Suggest <u>two</u> alternative interpretations of the results of the study, other than the Hawthorne effect.	4
	<ul> <li>Most likely answer (other appropriate responses to be credited): Quote from study</li> <li>'Over the years several other interpretations of the results of the Hawthorne studies than those made by the original reporters have been presented. Accordingly, the observed increase in productivity may well have been brought about by one or more of the following list:</li> <li>relief from harsh supervision,</li> <li>receiving positive attention (special privileges; the test room observer was, however, mainly concerned with creating a friendly relationship that would insure the workers' cooperation),</li> <li>learning new ways of interaction (the improved personal relations between workers and management),</li> <li>possibilities to influence work procedures,</li> <li>rest pauses (to allow for good control of the variables under study)</li> <li>higher income (of an incentive pay system based upon the output of the group in the test room)</li> <li>threat of losing one's job (the 1920s economic depression)</li> <li>changes in lighting levels'</li> </ul>	
4(d)	(see above). X2 Discuss the advantages and disadvantages of controlling variables when conducting field experiments on physical working conditions. You should include a conclusion in your answer.	5
	<ul> <li>Marks: 1 mark for each advantage/disadvantage (however basic/detailed) which is related/linked to the question (max 4 marks). 1 mark for conclusion.</li> <li>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.</li> <li>Most likely answer (other appropriate responses to be credited): Self-reports can include questionnaires and interviews. Advantages</li> <li>More control over irrelevant/extraneous variables means that the DV is more likely to be due to the IV.</li> <li>The use of experimental and control group means the control group is the baseline/benchmark of what is normal.</li> <li>Disadvantages</li> <li>There may be uncontrolled variables which might confound the result of a field experiment on physical working conditions</li> <li>Too many controls may make a situation artificial.</li> <li>Controlling variables is reductionist because no behaviour might exist in isolation.</li> </ul>	

Question	Answer	Marks
	Section B	
5(a)	Design a longitudinal study to investigate whether cognitive- behavioural therapy (CBT) manages schizophrenia effectively.	10
	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: longitudinal study.	
	Any method can be used, provided that the data gathered is over a period of time.	
	<ul> <li>Typical features:</li> <li>Experiments: type, IV, DV, controls, experimental design.</li> <li>Observations: type, setting, response categories, sampling frame, number of observers.</li> </ul>	
	Questionnaires/Interviews: type, setting, example questions.     Scoring/rating scale, analysis of responses.	
	<b>General features of research methodology</b> : sampling technique & sample, type of data, ethics, reliability, validity, data analysis.	
5(b)	Explain the psychological and methodological evidence on which your study is based.	8
	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.	
	<b>Marks:</b> use generic levels of response 'Design a study' question part (b). 'Psychological' = 4 marks; 'methodological' = 4 marks	
	If <b>only</b> methodological or psychological explanation is provided max 5 marks If 'psychological' described and <b>not</b> related to part (a) max 2 marks.	
	Syllabus: cognitive-behavioural therapy (Sensky et al., 2000)	
	<b>Psychological</b> : Sensky et al. (2000) used cognitive-behavioural therapy (CBT) to treat schizophrenia in patients already taking medication. After CBT sessions patients showed improvement. At the 9-month follow-up evaluation they continued to improve. It was concluded that CBT is effective. <b>Note 0 marks for candidates who merely replicate this study.</b>	
	<i>Methodological:</i> explanation of method using general and specific features as above.	

Question	Answer	Marks
6(a)	People often experience discomfort when their personal space is invaded.	10
	Design a study using a questionnaire to investigate which theory of personal space <u>best</u> explains people's discomfort in a crowded shop.	
	<b>Marks:</b> 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: questionnaire.	
	<b>Specific features</b> : <b>Questionnaires/Interviews</b> : type, setting, example questions. Scoring/rating scale, analysis of responses.	
	<b>General features of research methodology</b> : sampling technique & sample, type of data, ethics, reliability, validity, data analysis.	
6(b)	Explain the psychological and methodological evidence on which your study is based.	8
	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.	
	<b>Marks:</b> use generic levels of response 'Design a study' question part (b). 'Psychological' = 4 marks; 'methodological' = 4 marks If <b>only</b> methodological or psychological explanation is provided max 5	
	marks If 'psychological' described and <b>not</b> related to part (a) max 2 marks.	
	<b>Syllabus:</b> theories of personal space: overload, arousal and behaviour constraint	
	<i>Psychological:</i> Overload: are others in a shop coming too close and overstimulating us with sensory experience	
	Arousal: when others invade our space we are aroused. We may be happy with this, or we may move away/take flight/escape. Behaviour constraint: if others are too close we may feel crowded because we cannot move about the store freely.	
	<i>Methodological:</i> explanation of method using general and specific features as above.	

Question	Answer	Marks
7(a)	Prochaska et al. (1997) proposed the stages of change (transtheoretical) model.	10
	Design a longitudinal study to investigate whether a person wishing to change their health behaviour follows the stages in this model.	
	<b>Marks:</b> use generic levels of response Design a study question part (a).	
	<b>Additional</b> : Candidates should design the study showing evidence of design features appropriate to the named method. The named method is: <b>longitudinal</b> study. Any method can be used, provided that the data gathered is over a period of	
	<ul> <li>time.</li> <li>Typical features:</li> <li>Experiments: type, IV, DV, controls, experimental design.</li> <li>Observations: type, setting, response categories, sampling frame, number of observers.</li> <li>Questionnaires/Interviews: type, setting, example questions.</li> <li>Scoring/rating scale, analysis of responses.</li> </ul>	
	<b>General features of research methodology</b> : sampling technique & sample, type of data, ethics, reliability, validity, data analysis.	
7(b)	Explain the psychological and methodological evidence on which your study is based.	8
	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.	
	<b>Marks:</b> use generic levels of response 'Design a study' question part (b). 'Psychological' = 4 marks; 'methodological' = 4 marks If <b>only</b> methodological or psychological explanation is provided max 5 marks If 'psychological' described and <b>not</b> related to part (a) max 2 marks.	
	Syllabus: non-verbal communications (McKinstry and Wang, 1991)	
	<b>Psychological</b> : McKinstry and Wang looked at different styles of a doctors' appearance/ clothing. Participants looked at different male and female styles and found that wearing a white coat was generally preferred.	
	<i>Methodological</i> : explanation of method using general and specific features as above.	

Question	Answer	Marks
8(a)	Accidents at work may be caused by human errors or errors in operator-machine systems.	10
	Design a study to investigate which errors result in the <u>most</u> risk of accidents for workers.	
	Marks: use generic levels of response Design a study question part (a).	
	<b>Additional</b> : Candidates should design the study showing evidence of design features appropriate to the named method. The named method is: <b>any appropriate method</b> .	
	<ul> <li>Specific features:</li> <li>Experiments: type, IV, DV, controls, experimental design.</li> <li>Observations: type, setting, response categories, sampling frame, number of observers.</li> <li>Questionnaires/Interviews: type, setting, example questions. Scoring/rating scale, analysis of responses.</li> </ul>	
	<b>General features of research methodology</b> : sampling technique & sample, type of data, ethics, reliability, validity, data analysis.	
8(b)	Explain the psychological and methodological evidence on which your study is based.	8
	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.	
	<b>Marks:</b> use generic levels of response 'Design a study' question part (b). 'Psychological' = 4 marks; 'methodological' = 4 marks If <b>only</b> methodological or psychological explanation is provided max 5 marks If 'psychological' described and <b>not</b> related to part (a) max 2 marks.	
	Syllabus: accidents at work: errors and accidents in operator-machine systems	
	<ul> <li><i>Psychological:</i></li> <li>Riggio (1990) suggests when operating machines there can be errors of:</li> <li>Omission: failing to do something, such as forgetting to turn something off.</li> </ul>	
	<ul> <li>Commission: performing an act incorrectly, i.e. doing something wrong.</li> <li>Sequence errors: doing something out of order.</li> <li>Timing errors: doing something too quickly, or too slowly</li> </ul>	
	Errors can be due to tiredness/fatigue, use of alcohol and/or drugs or because of accident proneness. More errors happen during the 8pm-6am 'graveyard' shift.	
	<i>Methodological:</i> explanation of method using general and specific features as above.	

## Cambridge International AS & A Level – Mark Scheme **PUBLISHED**

Question	Answer	Marks
	Section C	
9	'Psychometric measures, such as the Kleptomania Symptom Assessment Scale (K-SAS), provide therapists with no useful information.'	12
	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: measures: Kleptomania Symptom Assessment Scale (K-SAS)	
	<b>Most likely</b> (any other appropriate responses should be credited): Useful:	
	<ul> <li>Measures such as K-SAS indicate the severity of a disorder</li> <li>The measure can highlight specific features of the disorder</li> <li>The measure can be used as a comparison to others with the same disorder</li> </ul>	
	<ul> <li>The measure provides quantitative data</li> <li>Any feature of a psychometric test (e.g. reliable, standardised)</li> </ul>	
	<ul> <li>Not useful:</li> <li>Measures can use scales (5 or 7 point) which allow the person to 'opt out' or give a neutral answer'</li> </ul>	
	<ul> <li>Scales do not take individual differences into account; there might be some aspect which the scales do not cover</li> </ul>	
	• A patient may want to talk to a therapist about the problem, not just fill in a questionnaire.	
	Interviews by therapists may reveal far more about the individual problem	
	Interviews can reveal specific problems not covered by a general psychometric test.	

Question	Answer	Marks
10	<i>'Studies like 'defending a place in a queue' (Milgram et al., 1986) should never be conducted because they are unethical.'</i>	12
	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: defending place in a queue (Milgram et al., 1986)	
	<ul> <li>Most likely (any other appropriate responses should be credited): Should be done:</li> <li>The ends justify the means: studies should be done even if ethical guidelines are broken</li> <li>The ethical issues are minimal. No-one is hurt</li> <li>If people are fully de-briefed then there is no problem conducting studies</li> </ul>	
	<ul> <li>Should not be done</li> <li>'innocent' people should not be participants in this study without their informed consent.</li> <li>People should not be subjected to the psychological 'harm' of the stress of another person pushing in.</li> <li>A debrief does not justify unethical procedures.</li> </ul>	

Question	Answer	Marks
11	<i>'Promoting healthy eating to children in schools is irrelevant; it is more important to promote healthy eating to parents in the home.'</i>	12
	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 promotion in schools, worksites & communities	
	<ul> <li>Most likely (any other appropriate responses should be credited): Schools not irrelevant:</li> <li>Some studies such as Tapper et al. have shown healthy eating programmes to be effective in schools.</li> <li>What children learn in school can be transferred to what children do in the home; in life. Application of operant conditioning: positive reinforcement can generalise</li> </ul>	
	<ul> <li>Schools irrelevant:</li> <li>Parents should be targeted to provide healthy food for their children; it is a 'back-route' to change the family through children in schools.</li> <li>Parents influence children (Lau et al. ,1990) and the enduring family socialisation model.</li> <li>Children are easily manipulated and can be influenced. Perhaps unethical without parental consent.</li> </ul>	

Question	Answer	Marks
12	'Group conflict can always be managed successfully'.	12
	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: managing group conflict (Thomas, 1976)	
	<b>Most likely</b> (any other appropriate responses should be credited): It can:	
	<ul> <li>Conflict can be successfully managed so it becomes a positive rather than a negative</li> </ul>	
	<ul> <li>Forsyth lists ways to manage conflict, such as through compromise of both sides</li> </ul>	
	<ul> <li>Conflict can be managed through radical solutions: moving a person to a different department, sacking/firing, for the benefit of the organisation and 'efficiency'</li> </ul>	
	It cannot:	
	<ul> <li>People may say that the conflict is resolved, but still maintain their own view/grudge against a person.</li> </ul>	
	<ul> <li>People may work with others, be professional, yet still maintain their private dislike or distrust.</li> </ul>	
	• Some people never believe that they are wrong; some have strong principles; some would rather leave an organisation.	