



Oxford Cambridge and RSA

**GCSE**

**Psychology**

**J203/02: Studies and applications in Psychology 2**

General Certificate of Secondary Education

**Mark Scheme for June 2023**

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This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which marks were awarded by examiners. It does not indicate the details of the discussions which took place at an examiners' meeting before marking commenced.

All examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the report on the examination.

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## MARKING INSTRUCTIONS

### PREPARATION FOR MARKING

1. Make sure that you have accessed and completed the relevant training packages for on-screen marking: *RM Assessor3 assessor Online Training*; *OCR Essential Guide to Marking*.
2. Make sure that you have read and understood the mark scheme and the question paper for this unit. These are posted on the RM Cambridge Assessment Support Portal <http://www.rm.com/support/ca>
3. Log-in to RM Assessor and mark the **required number** of practice responses (“scripts”) and the **number of required** standardisation responses.

**Check with instructions: YOU MUST MARK 5 PRACTICE AND 10 STANDARDISATION RESPONSES BEFORE YOU CAN BE APPROVED TO MARK LIVE SCRIPTS.**

### MARKING

1. Mark strictly to the mark scheme.
2. Marks awarded must relate directly to the marking criteria.
3. The schedule of dates is very important. It is essential that you meet the RM Assessor3 50% and 100% (traditional 40% Batch 1 and 100% Batch 2) deadlines. If you experience problems, you must contact your Team Leader (Supervisor) without delay.
4. If you are in any doubt about applying the mark scheme, consult your Team Leader by telephone or the RM Assessor3 messaging system, or by email.
5. **Crossed Out Responses**  
Where a candidate has crossed out a response and provided a clear alternative then the crossed out response is not marked. Where no alternative response has been provided, examiners may give candidates the benefit of the doubt and mark the crossed out response where legible.

**Rubric Error Responses – Optional Questions**

Where candidates have a choice of question across a whole paper or a whole section and have provided more answers than required, then all responses are marked and the highest mark allowable within the rubric is given. Enter a mark for each question answered into RM assessor, which will select the highest mark from those awarded. *(The underlying assumption is that the candidate has penalised themselves by attempting more questions than necessary in the time allowed.)*

**Multiple Choice Question Responses**

When a multiple-choice question has only a single, correct response and a candidate provides two responses (even if one of these responses is correct), then no mark should be awarded (as it is not possible to determine which was the first response selected by the candidate).

*When a question requires candidates to select more than one option/multiple options, then local marking arrangements need to ensure consistency of approach.*

**Contradictory Responses**

When a candidate provides contradictory responses, then no mark should be awarded, even if one of the answers is correct.

**Short Answer Questions** (requiring only a list by way of a response, usually worth only **one mark per response**)

Where candidates are required to provide a set number of short answer responses then only the set number of responses should be marked. The response space should be marked from left to right on each line and then line by line until the required number of responses have been considered. The remaining responses should not then be marked. Examiners will have to apply judgement as to whether a 'second response' on a line is a development of the 'first response', rather than a separate, discrete response. *(The underlying assumption is that the candidate is attempting to hedge their bets and therefore getting undue benefit rather than engaging with the question and giving the most relevant/correct responses.)*

**Short Answer Questions** (requiring a more developed response, worth **two or more marks**)

If the candidates are required to provide a description of, say, three items or factors and four items or factors are provided, then mark on a similar basis – that is downwards (as it is unlikely in this situation that a candidate will provide more than one response in each section of the response space.)

**Longer Answer Questions** (requiring a developed response)

Where candidates have provided two (or more) responses to a medium or high tariff question which only required a single (developed) response and not crossed out the first response, then only the first response should be marked. Examiners will need to apply professional judgement as to whether the second (or a subsequent) response is a 'new start' or simply a poorly expressed continuation of the first response.

6. Always check the pages (and additional objects if present) at the end of the response in case any answers have been continued there. If the candidate has continued an answer there, then add a tick to confirm that the work has been seen.

## 7. Award No Response (NR) if:

- there is nothing written in the answer space

Award Zero '0' if:

- anything is written in the answer space and is not worthy of credit (this includes text and symbols).

Team Leaders must confirm the correct use of the NR button with their markers before live marking commences and should check this when reviewing scripts.

8. The RM Assessor3 **comments box** is used by your team leader to explain the marking of the practice responses. Please refer to these comments when checking your practice responses. **Do not use the comments box for any other reason.**

If you have any questions or comments for your team leader, use the phone, the RM Assessor messaging system, or e-mail.

9. *Assistant Examiners will send a brief report on the performance of candidates to their Team Leader (Supervisor) via email by the end of the marking period. The report should contain notes on particular strengths displayed as well as common errors or weaknesses. Constructive criticism of the question paper/mark scheme is also appreciated.*

## 10. For answers marked by levels of response:

- To determine the level** – start at the highest level and work down until you reach the level that matches the answer
- To determine the mark within the level**, consider the following

Descriptor	Award mark
On the borderline of this level and the one below	At bottom of level
Just enough achievement on balance for this level	Above bottom and either below middle or at middle of level (depending on number of marks available)
Meets the criteria but with some slight inconsistency	Above middle and either below top of level or at middle of level (depending on number of marks available)
Consistently meets the criteria for this level	At top of level

## 11. Annotations

Annotation	Meaning
/	
?	Unclear
A01	
A02	
A03	
∧	Omission
×	Incorrect
✓	Correct
	Highlighter
SEEN	Seen
IRRL	Significant amount of material which doesn't answer the question
BP	Blank page
REP	Repetition

Question		Answer	Mark	Guidance
1	(a)	1 mark for correctly identifying A (Light) as an exogenous zeitgeber.	1	
1	(b)	1 mark for correctly identifying C (5) as the number of stages in a complete sleep cycle.	1	
1	(c)	1 mark for correctly identifying A (Melatonin levels are high at night and low in the morning) as the correct statement.	1	
2		<p>1 mark for recognising that REM is where dreaming takes place during sleep.</p> <p>1 further mark for an elaborated response outlining an additional feature of REM.</p> <p>For example:            'REM is when dreaming takes place. [1] The eyes move rapidly <b>to reflect the person's dream</b>'. [1]            Or:</p>	2	<p>Defining REM as Rapid Eye Movement is not creditworthy alone.</p> <p>Most likely additional features include:</p> <p>Breathing is quicker and less regular.            Limb muscles are temporarily paralysed.            Brain waves are similar to being awake.            Heart rate increases, blood pressure rises, body temperature can go up and down.            Delta waves in REM sleep.</p>

Question		Answer	Mark	Guidance
		'REM is when dreaming takes place. [1] Brain activity is very high leading to more dreaming at this stage of sleep.' [1]		NB: The question focuses on <b>what</b> REM is, <b>not</b> when it takes place or which stage of sleep.
3	(a)	1 mark for recognising that Charlie is experiencing (sleep) onset insomnia.	1	
3	(b)	1 mark for stating <b>one</b> cause of sleep onset insomnia.  Most likely answers include:  (Charlie may have had too much) caffeine or nicotine before going to bed. (Charlie may have) eaten a big meal before bed. (Charlie may have) played computer games close to bedtime. (Charlie may have) physical pain that keeps them awake. (Charlie may have) jet lag.	1	Noise preventing Charlie from getting to sleep <b>is</b> creditworthy.  Sharing a room with Alex/Alex snoring and low melatonin are not creditworthy. Alcohol is not creditworthy as it affects sleep maintenance.
3	(c)	1 mark for each correct change Charlie could make to their bedroom to facilitate a good night's sleep, up to a maximum of 2 marks.  Most likely answers include:	2 (1+1)	Responses should indicate a <b>change to an identifiable act</b> ie saying 'no light' or 'make it darker' are not creditworthy but saying 'use blackout blinds is'.



Question		Answer	Mark	Guidance
		<p>(Charlie could) use blackout blinds to make the room darker.</p> <p>(Charlie could) declutter the bedroom.</p> <p>(Charlie could) move computers and their mobile phone out of sight.</p> <p>(Charlie could) face a clock away from the bed.</p>		
3	(d)	<p>1 mark for demonstrating an understanding that Charlie's stress has increased the activity of the (sympathetic) nervous system.</p> <p>1 mark for identifying a method of relaxation either by name or description.</p> <p>1 mark for describing the outcome of the method of relaxation on the nervous system.</p> <p>For example:</p> <p>'Because Charlie is stressed, he has increased activity of the sympathetic nervous system [1]. He could try deep breathing [1] which would help to calm his nervous system and promote sleep' [1].</p>	3	
4	(a)	<p>1 mark for each correctly outlined feature of the procedure used in Williams et al.'s (1992) study.</p> <p>Features may include:</p>	4	The features do not have to be in logical order to gain credit.

Question	Answer	Mark	Guidance
	<p>Participants kept a written journal recording the dreams they had and whether they woke up during the night, and in the morning.</p> <p>Mental activity occurring during waking was also recorded if it met the definition of fantasy.</p> <p>60 dream <b>and</b> 60 fantasy reports were selected from the journals submitted by the 12 students.</p> <p>Selection was based on length (in excess of 5 lines) or the presence of descriptions of formed visual perceptions.</p> <p>Reports were divided into one-sentence units and scored separately.</p> <p>They were each scored separately for bizarreness using a coding scale.</p> <p>The judges did not know if they were scoring a dream or fantasy.</p> <p>Three judges scored all 120 reports for bizarreness using after the reports had been transcribed.</p> <p>Judges worked independently so inter-rater reliability could be determined.</p> <p>The duration was one term.</p>		<p>Features of the sample are not creditworthy.</p>

Question		Answer	Mark	Guidance
4	(b)	<p>1 mark for stating a brief conclusion from Williams <i>et al.</i>'s study.</p> <p>1 further mark for an elaborated response linking the conclusion to the findings of the study.</p> <p>For example:</p> <p>'The brain activity shown in REM sleep is associated with dreams being bizarre [1], because dreams contained more bizarreness.' [1]</p> <p>Or:</p> <p>'Dreaming and fantasising are different types of cognitive ability [1] because the judge could tell which ones were dreams and which were fantasies.' [1]</p> <p>Or</p> <p>'Findings support the physiological model of dreaming/the activation-synthesis hypothesis [1] due to the difference in neural activity of the brain between REM sleep and waking.' [1]</p> <p>Or</p> <p>'Dreams contain more bizarreness [1] because bizarreness was twice as prevalent in dreams than fantasies.' [1]</p> <p>Or</p> <p>'Brain activity that occurs in sleep is not the same as when awake [1] because the judges could distinguish between a dream and a fantasy.' [1]</p>	2	If two conclusions are given, credit the first one.

Question		Answer	Mark	Guidance
5	(a)	<p>1 mark for an appropriate open question.</p> <p>For example:            'What sorts of things do you dream about?'[1], 'Describe what you dreamed about last night.' [1]</p>	1	The question must pertain to the context of dream <b>content</b> to achieve credit.
5	(b)	<p>1 mark for demonstrating an understanding of the concept of construct validity.</p> <p>1 further mark for an elaborated response clearly explaining how using an unstructured interview affects construct validity.</p> <p>1 further mark for a contextualised response relating to the content of dreams.</p> <p>For example:            'Construct validity is whether you are investigating the underlying theoretical concept [1]. Using an unstructured interview would improve construct validity as the method would allow participants to elaborate on their dream content [1]. This would allow the psychologist to gather in-depth qualitative data about the dreams'. [1]</p>	3	Due to the nature of the investigation, answers will refer to an increase in construct validity.

Question		Answer	Mark	Guidance
6		<p>1 mark for each correctly drawn line between the definition and its correct evaluative term.</p> <p>For example;</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;"> <p><b>Definition</b></p> <div style="border: 1px solid black; padding: 5px; width: 150px;">Dreams are highly complex so reducing them down to simple neuronal processes is too simplistic</div> <div style="border: 1px solid black; padding: 5px; width: 150px; margin-top: 20px;">There is evidence that dreams occur in more than one of the stages of the sleep cycle</div> </div> <div style="text-align: center;"> <p><b>Evaluative term</b></p> <div style="border: 1px solid black; padding: 5px; width: 80px;">Determinism</div> <div style="border: 1px solid black; padding: 5px; width: 80px; margin-top: 10px;">Reductionism</div> <div style="border: 1px solid black; padding: 5px; width: 80px; margin-top: 10px;">Validity</div> </div> </div>	2	If two lines are drawn from the same definition to two evaluative terms, no credit.
7	(a)	1 mark for correctly identifying C (65%) as the percentage.	1	
7	(b)	1 mark for correctly identifying D (whether the participants were shown a Disney advert or a control advert) as the IV.	1	
7	(c)	1 mark for identifying A (the study was age biased).	1	
8	(a)	1 mark for identifying A (How much did you like our service, was it excellent or good?) as the leading question.	1	

Question		Answer	Mark	Guidance
8	(b)	<p>1 mark for recognising that leading questions suggest a certain type of answer. 1 mark for placing the explanation in context of the investigation in the source.</p> <p>For example: 'Leading questions suggest to the individual which answer they are looking for. [1] So by asking how much did you like our service, was it excellent or good, they are leading the participant to recall the service as either excellent or good.' [1]</p> <p>'Leading questions use specific verbs or words that lead an individual into a response [1] such as by referring to good or excellent leads to them saying it was.' [1]</p>	2	Context must come from <b>how</b> the leading question could distort memory (through satisfaction/good/excellent).
8	(c)	1 mark for identifying (C) (How do you feel about the service you received?) as the question which collects qualitative data.	1	
8	(d)	<p>1 mark for a question relating to <b>customer satisfaction</b> 1 mark for an appropriate scale.</p> <p>For example: Overall, how satisfied were you with the service you received where 1 is very satisfied and 5 is not at all satisfied</p>	2	<p>The scale can be either strongly agree, agree, disagree etc, or numerical (1-5).</p> <p>If a numerical scale is used, it should be defined.</p>

Question		Answer	Mark	Guidance
		1 2 3 4 5		If the question does not relate to customer satisfaction but does include an appropriate scale, 1 mark can be awarded.
9	(a)	<p>1 mark for each correctly drawn line between each type of amnesia and its correct finding.</p>	2	If two lines are drawn from the same type of amnesia to two findings, no credit.
9	(b)	<p>1 mark for stating a strength of using a case study. 1 mark for explaining the strength in context of Wilson and Kapur's (2008) study.</p> <p>For example: 'One strength of using a case study is that it allows researchers to observe and record information about rare conditions. [1] This was the case in this study as Clive Wearing suffered from a severe and rare case of both anterograde and retrograde amnesia.' [1]</p>	2	Definitions of case studies are not creditworthy. It must be clear that a strength is identified.

Question		Answer	Mark	Guidance
		'One strength of using a case study is that it allows researchers to collect data in greater depth. [1] This was the case in this study where a series of MRI scans were taken over an extended period of time.' [1]		
10	(a)	1 mark for recognising that decay is when information is lost when we do not pay attention to it (in the sensory store) or in the absence of rehearsal (in short-term memory).	1	
10	(b)	1 mark for identifying a type of forgetting. 1 further mark for explaining how it leads to forgetting.  For example: 'One type of forgetting is displacement [1] which occurs when the short-term store is full so information is displaced to make room for new information.' [1]	2	Amnesia as a type of forgetting is not creditworthy.
10	(c)	1 mark for briefly outlining how cues could be used to improve recall. 1 further mark for explaining how the cue would aid recall in context of the study in the source.  For example:	2	Definitions of cues are not creditworthy. The response should go beyond just identifying a type of cue to gain credit.



Question		Answer	Mark	Guidance
		'Context cues could be used to aid recall of the word lists [1] by asking the participants to learn and recall the words in the same location.' [1], or, 'Mnemonics could be used to aid recall of the word lists [1]. The participants could make up a song using the words from the lists and then replay the song when recalling them.' [1].		
10	(d)	<p>1 mark for recognising that the median is calculated by placing all the scores in ascending order and finding the middle score.</p> <p>1 mark for recognising that this would be done for <b>each</b> condition.</p> <p>For example:            'The psychologist would have to put all the scores in ascending order and find the middle score [1] for both the immediate recall and delayed recall group.' [1]            Or            'The psychologist would place the number of words recalled in ascending order and find the middle score [1] for each group.' [1]</p>	2	For full marks, it has to be clear that two medians are being calculated; one for each condition.
10	(e)	1 mark for recognising that the psychologist used an independent measures experimental design.	2	

Question		Answer	Mark	Guidance
		<p>1 mark for showing an understanding of how an independent measures design was used in context of the investigation.</p> <p>For example;            'The psychologist used an independent measures experimental design [1] because one group recalled the word list immediately whereas the <b>other</b> group were asked to count backwards from 10-1.' [1]</p>		
11		<p>1 mark for outlining what the Wechsler memory test is used for.            1 further mark for outlining one additional feature of the test itself.</p> <p>For example;            'The test was designed to measure whether different types of memory are functioning properly. [1] It does this with seven subsets including spatial addition, symbol span and design memory.' [1]</p>	2	<p>Most likely features include:</p> <p>It can be used with 16-90-year-olds.            Results are presented in five different sets : memory, auditory, visual, visual working, immediate and delayed recall.</p>
12	(a)	1 mark for identifying B (hippocampus) as the part of the brain associated with self-esteem.	1	
12	(b)	1 mark for identifying D (prefrontal cortex) as the part of the brain associated with moral reasoning.	1	

Question		Answer	Mark	Guidance
12	(c)	1 mark for identifying C (more likely to obey those in authority and discriminate against those who they see as inferior) as best describing the authoritarian personality.	1	
13	(a)	<p>1 mark for outlining one of Bickman's findings in relation to the guard's or policeman's authority.</p> <p>1 mark for explaining how Sam could utilise this finding on the poster.</p> <p>1 mark for justifying how this would encourage people to place litter in bins.</p> <p>For example:            'Bickman found that the uniformed guard requesting that the participant picked up the bag had the highest level of authority. [1] Sam could use someone in a policeman's or guard's uniform in the poster. [1] This would increase the likelihood of people obeying the poster's instruction and placing rubbish in the bin.' [1]</p>	3	It must be clear the response is referring to Bickman's study through the use of guard/policeman.
13	(b)	<p>1 mark for the identification of a problem of using Bickman's research.</p> <p>1 further mark for an elaborated response explaining how or why this would be a problem for Sam.</p> <p>For example:</p>	2	The question focuses on Bickman's study not general problems with posters.

Question		Answer	Mark	Guidance
		<p>'One problem with Bickman's study is that it was culturally biased. It was only done in one street in America [1] so we cannot be sure that the same effect of the uniform will apply in Sam's local town.' [1]</p> <p>Or:</p> <p>'Bickman's study lacked control over extraneous variables as it was a field experiment. [1] This means that other factors like the weather may have affected the results and so the same findings may not occur when Sam uses the study in the poster.' [1]</p>		
14		<p>1 mark for each correctly placed term.</p> <p>People who have an internal locus of control believe that they have the ability to control their decisions about their own life. In crowd situations, people with an <b>internal</b> locus of control are <b>less</b> likely to be influenced by how the crowd is behaving. People with an <b>external</b> locus of control are more likely to use violence when taking part in a protest.</p>	3	
15		<p><u>AO1 marks</u></p> <p>Definition of generalisability.</p> <p>Description of Natcen <i>et al.</i> (2011) study into August riots in London which reflect its generalisability. For example, details from the sample, procedure location or findings of the study. Description of an explanation</p>	13	<p><b>For AO1:</b> to be placed in Level 2 or above, the response must refer to <b>both description of Natcen <i>et al.</i> (2011) study and</b> at least one other area of psychology.</p>

Question	Answer	Mark	Guidance
	<p>relating to at least one other different area of psychology in relation to generalisability. Details from the findings of relevant studies.</p> <p><u>AO3 marks</u></p> <p>Valid critical evaluation points relating to generalisability and the use of research. Valid critical evaluation points relating to generalisability and the use of research in relation to an explanation relating to at least one other study from a different area of psychology.</p> <p><b>AO1</b> <b>Level 3: (5-6 marks):</b> There is a <b>thorough</b> description of Natcen <i>et al.</i> <b>and</b> at least one other area of psychology. This is done with accuracy and clarity. The information presented is relevant and substantiated in a good structure.</p> <p><b>Level 2 (3-4 marks):</b> There is a <b>good</b> description of Natcen <i>et al.</i> <b>and</b> at least one other area of psychology. There may be some inaccuracies though most of the information presented is relevant. The response has a reasonable structure.</p>		<p><b>For AO3:</b> to be placed in Level 2 or above, the response must refer to <b>both Natcen <i>et al.</i> (2011) study and</b> at least one other area of psychology</p> <p>AO1 <b>Level 1</b> may typically: define generalisability <b>with</b> either BASIC description of Natcen + one other study from a different area with some relevant information <b>OR</b> only Natcen study is described.</p> <p>AO1 <b>Level 2</b> may typically: GOOD detail of Natcen + one other study from a different area; most information is relevant with some detail linked to generalisability.</p> <p>AO1 <b>Level 3</b> may typically: THOROUGH detail of Natcen + one other study from a different area; accurate and detailed information linked to generalisability.</p> <p>AO3 <b>Level 1</b> may typically: <b>Either</b> GENERIC/BASIC attempt at evaluation of Natcen + one other study from a</p>

Question	Answer	Mark	Guidance
	<p><b>Level 1 (1-2 marks):</b> There is a <b>basic</b> description of Natcen <i>et al.</i> and/or one other area of psychology.</p> <p>This may include some inaccuracy. The information has some relevance though there will be inaccuracies. Structure will be weak/poor.</p> <p><b>(0 marks):</b> No credit worthy response.</p> <p><b>AO3</b> <b>Level 3 (6-7 marks):</b> There is a <b>thorough</b> evaluation which offers breadth and/or depth <b>covering at least two different points</b> in relation generalisability. Points are coherent and relevant and the response is developed in order to reach a substantiated judgement in response to the question.</p> <p><b>Level 2 (4-5 marks):</b> There is a <b>good</b> evaluation which offers breadth and/or depth covering <b>at least two different points</b> in relation to generalisability. Points may be brief but should still be relevant and used to reach a supported judgement in response to the question.</p> <p><b>Level 1 (1-3 marks):</b> There may be some <b>basic</b> attempt at evaluation but it will be weak. Judgements will be either unclear or absent.</p> <p><b>(0 marks):</b> No credit worthy response.</p>		<p>different area relating to generalisability of research. Two + points usually required for 3 marks <b>OR</b> Only evaluation in relation to Natcen study referred to.</p> <p>AO3 <b>Level 2</b> may typically: Two GOOD points (can be strengths and/or weaknesses) relating to generalisability. Points may be brief; points should be in the context of Natcen and one other study from a different area. An attempt should be made to draw appropriate conclusion(s)</p> <p>AO3 <b>Level 3</b> may typically: Two + THOROUGH relevant points relating to both Natcen and one other study from a different area. Points are fully elaborated and appropriate conclusion(s) are made.</p>

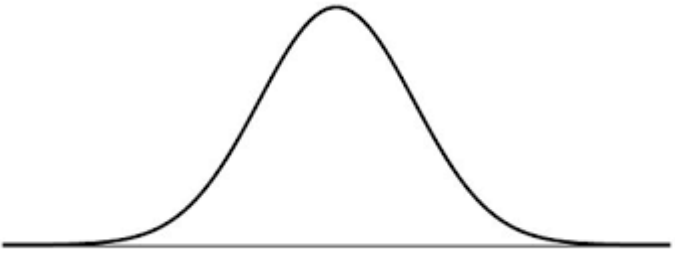
Question			Answer	Mark	Guidance
16			<p>1 mark for recognising that an alternative hypothesis predicts a difference. 1 mark for correctly identifying the variables.</p> <p>For example: Employees who complete tasks at home will take more [1] hours to complete them than those who work in the office. [1]</p> <p>‘There will a difference [1] in the time taken to complete the tasks at home compared to at work.’ [1]</p> <p>‘Employees who complete tasks at home will take longer/less time [1] to complete them than those who work in an office.’ [1]</p>	2	<p>Hypotheses can be directional (one-tailed) or non-directional (two-tailed).</p> <p>The hypothesis must refer to time (hours)</p> <p>The following are not creditworthy: Statement of results, aims, or hypotheses referring to a relationship.</p>
17			<p>1 mark for stating a weakness of random sampling compared to using opportunity sampling. 1 mark for placing this weakness in context of the investigation in the source.</p> <p>For example:</p>	2	<p>Definitions of random sampling are not creditworthy.</p> <p>A comparison with opportunity sampling is needed (this may be implicit in the response) - ie they must say <b>why</b> they did not use a random sample</p>

Question		Answer	Mark	Guidance
		<p>'It is quick and more convenient to carry out opportunity sampling as it is just who is available at the time however, random sampling is more time-consuming [1] as they need to obtain the names of everyone in the office before selecting 10 participants.' [1]</p> <p>'A random sample takes <b>longer</b> to achieve [1] because they need to obtain the names of everyone in the office before selecting 10 participants.' [1]</p>		
18		1 mark for ticking the first box and identifying the type of experiment as a field experiment.	1	
19		<p>1 mark for stating a strength of using an independent measures design/weakness of repeated measures. 1 mark for placing this strength in context of the investigation in the source.</p> <p>'Reduces the chance of demand characteristics impacting the results [1]. If participants guess the independent variable they may try harder to complete more tasks quickly either at home or in the office.' [1]</p> <p>Answers may refer to:</p> <p>Less chance of order/practice effects.</p>	2	<p>For full marks, the response must refer to the impact of the strength on the context of the investigation.</p> <p>Definitions of an independent measures design are not creditworthy.</p> <p>Descriptions of how an independent measures design was used are not creditworthy.</p>



Question		Answer	Mark	Guidance
20	(a)	1 mark for a partially correct response (6/8) 1 mark for $\frac{3}{4}$	2	
20	(b)	1 mark for correct working showing the range is calculated by taking the lowest score from the highest. 1 mark for the correct answer of 2.5.	2	7.5-5
21		1 mark for demonstrating an understanding of experimenter bias through the identification of one type of bias. 1 mark for explaining how this affects the validity of this investigation. 1 mark for setting this understanding in context.  For example: 'The experimenter may have given a harder task [1] to complete in one condition based on their own beliefs about whether people should work from home or not [1]. This would make one task take longer than the other swaying the results leading to a decrease in the internal validity.' [1]	3	<b>Purposeful action from the experimenter to manipulate the results:</b>  Intentionally interpret the results (make a judgment on productivity).  Intentionally selecting participants and placing them into the appropriate group
22		1 mark for recognising an extraneous variable in relation to the study in the source.	3	Definitions of an EV is not creditworthy.

Question		Answer	Mark	Guidance
		<p>1 mark for demonstrating an understanding that standardisation involves keeping features of the study the <b>same</b>.</p> <p>1 mark for demonstrating an understanding of <b>how</b> this would reduce the impact of the extraneous variable on the results.</p> <p>For example:            'One extraneous variable that could affect the study is task difficulty [1] therefore the psychologist should use the same tasks at home and in the office [1] otherwise this would reduce the validity of the results.' [1]            Or            'Some people may have worked for the company longer which will affect how quickly they work [1]. The psychologist should make sure all participants have the same experience [1] so only the home and office environments are being compared.' [1]</p>		<p>Identification of a generic EV is not creditworthy. It has to be clear that the EV is related to the study. For example, stating temperature alone is not credit worthy, but stating different temperatures may affect speed of working is <i>(that the EV may differ between the participants or conditions)</i>.</p> <p>For full marks, there must be some contextualisation to the study in the source (time, hours, productivity, 10 (participants), home, office, employees, tasks, company).</p>
23		<p>1 mark for sketching a recognisable normal distribution curve as a bell-shaped curve.</p> <p>For example:</p>	1	

Question			Answer		Mark	Guidance
						

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