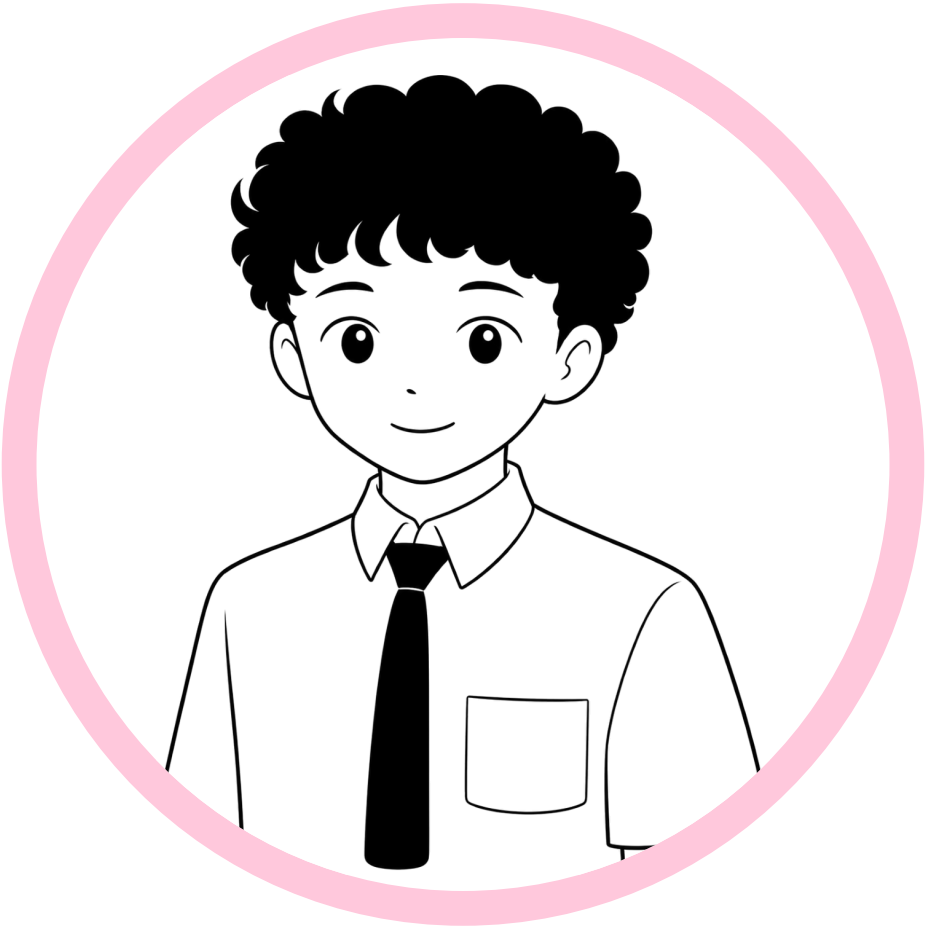
OCR A-LEVEL PSYCHOLOGY · H567

PSYCHOLOGY



EXAM QUESTION PACK

ENVIRONMENTAL PSYCHOLOGY

SCORE	PERCENTAGE
/280	%

STEMUP

These questions belong to OCR, not to us.

The examination questions, mark schemes and examiner comments in this pack were written and published by OCR. They are past assessment materials, reproduced here so that students can revise from them.

What we do not own

STEMUP is not affiliated with OCR and does not own, and makes no claim to own, any of the question, mark scheme or examiner report material in this pack. OCR has not endorsed, approved or been involved in the production of it. OCR and the qualification titles used here belong to their respective owners and appear for identification only.

Where to find the originals

OCR publishes its past papers, mark schemes and examiner reports free of charge. Always check the current specification at ocr.org.uk before you revise, because content and wording can change between series.

If you hold the rights to any material in this pack and would like it amended or removed, contact admin@stemup.co.uk and we will act on it.

1(a) Outline the key research by Wells (2000) **and** explain what it tells us about territory in the workplace.

[10]

research into territory and personal space is ethnocentric.

[15]

g an office where people can hire workspaces. She wants the office t
range of potential clients as possible.

Outline at least one suggestion, based on research into territory or personal space, that a psychologist might make to Sundip about how to design her office.

[10]

esearch by Black and Black (2007) and use it to explain the impact of
on our biological responses.

[10]

(b) Discuss research into stressors in the environment in relation to ethical considerations.

[10]

nt revising for his exams. He has tried studying at home and the town

both environments stressful to revise in. Jamal is keen to do well in his exams and really needs somewhere suitable to do his revision.

Outline **at least one** strategy a psychologist might suggest for how Jamal could manage environmental stress to be able to revise effectively for his exams.

[10]

e key research by Czeisler et al. (1982) tells us about biological rhyth

[10]

ng bias in research into biological rhythms.

[15]

a member of cabin crew for an international airline that flies across dif
scheduled to work a series of shifts that will mean having to stay awake when they would normally be asleep.

Outline at least one strategy for how Azmi can try to reduce the effects of shift work or jet lag upon them.

[10]

research by Lord (1994) and explain what it tells us about factors tha
behaviour.

STEMUP.CO.UK

[10]

(b) * Discuss the freewill / determinism debate in relation to research into recycling and other conservation behaviours.

[15]

(c) * Kai works for the local Council as an environmental officer. Kai is concerned that residents are being wasteful in their use of water. Kai would like them to turn taps off when brushing their teeth. Kai would also like them to have showers instead of baths.

Outline at least **one** technique a psychologist might advise Kai to use to get people using less water.

[10]

research by Black and Black (2007) and explain what it tells us abou

[10]

uctionism/holism debate in relation to research into stressors in the e

[15]

(c) * For the last few years, Simon has been able to walk to work. He has just been given a job that will require him to travel approximately 20 miles to get to work. A range of different transport options are available to Simon, but he is worried that his daily commute could become a stressful experience.

Outline at least one strategy for managing environmental stress that a psychologist might suggest to commuters like Simon.

STEMUP.CO.UK

[10]

6(a)

*Discuss the reliability of research into ergonomics (human factors).

[15]

(b) *Ranjit is setting up a call centre to deal with customer queries. He wants staff to be able to give their full attention to the calls they are handling.

What advice might a psychologist give Ranjit about how to apply ergonomic research to the design of this new workplace?

STEMUP.CO.UK

[10]

key research by Drews and Doig (2014) could be used to help nurse

[10]

* Explain how the key research by Ulrich (1984) could be used to influence the design of hospitals.

[10]

lidity of research into psychological effects of the built environment.

[15]

e planning department of his local town council. He has been given t
expansion to the town. His aim is to design the new part of town so that it has a positive effect on the health / wellbeing of the people who will live there.

What might a psychologist suggest about how Jon can achieve his aim?

[10]

* Explain how the research by Lord (1994) could be used to improve levels of recycling.

[10]

(b) * Discuss the individual-situational explanations debate in relation to recycling and other conservation behaviours.

STEMUP.CO.UK

[15]

cher in a primary school. The children in the school are aged from 4–1
responsible for increasing recycling and other conservation behaviours among the children in the school.

What suggestions might a psychologist make to Trevor about techniques for increasing recycling or other conservation behaviours among the children in the school?

[10]

END OF QUESTION PAPER

Question			Answer/Indicative content	Marks	Guidance
1	a		**Outline the key research by Wells (2000) and explain what it tells us about territory in the workplace.** **AO1 (5 marks)** Candidates must refer to the key study by Wells (2000). Candidates will demonstrate knowledge and understanding of this key study through describing the psychological evidence of the key study appropriately and effectively. A good/Level 4 response will typically include details of at least 3 of following features: - Why the study was done (e.g. background or aim or hypotheses) - Who was the study done on (e.g. details of sample) - How the study was done (e.g. identification of the research method used; methodological details/ procedure) - What was found (e.g. the results or conclusions) A reasonable/Level 3 response will typically include 2-3 of the above features. A limited/Level 2 response will typically include 1-2 of the above features. A basic/Level 1 response will typically include 1 of the above features. **AO2 (5 marks)** Candidates should *apply* their knowledge and understanding of the study by Wells (2000) to explain what it tells us about territory in the workplace. Answers can be expected to refer to: • How the well-being of employees can be enhanced by allowing personalisation of office space. • The reported gender differences in how males and females personalise their office workspaces. • Personalisation is generally seen as a form of territorial behaviour, enabling people to mark and defend their territory, and regulate social interactions to maintain privacy. [Note: some attempt at explaining how/why territory matters to people is required for top band] Less detailed answers or answers that	10	APPENDIX 1 Generic mark scheme for Section B PART (a) QUESTIONS *AO1: Demonstrate knowledge and understanding of scientific ideas, processes, techniques and procedures (5 marks)* *AO2: Apply knowledge and understanding of scientific ideas, processes, techniques and procedures (5 marks)* Generic mark scheme (part a) Guidance Level 4 (9–10 marks) Response demonstrates good relevant knowledge and understanding. Accurate and reasonably detailed description. There is appropriate selection of material to address the question. Response demonstrates a good application of psychological knowledge and understanding to the question. Application will be explicit, accurate, and relevant to the question. There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated. Answers in this band go beyond what might be expected of a standard, accurate response. For example, the answer may contain detailed knowledge of the study (e.g., a number of accurate fine details) and/or detailed understanding of how to apply it (e.g. making a number of different, relevant application points, rather than just one application point). Alternatively, answers may 'go beyond' by bringing in additional supporting research (i.e., use more than just the key study to address the question) where the wording of the question permits this. Level 3 (6–8 marks) Response demonstrates reasonable relevant knowledge and understanding. Generally accurate description lacking some detail. There is some evidence of selection of material to address the question. Response demonstrates a reasonable application of psychological knowledge and understanding to the question. Application will be clear and

STEMUP.CO.UK

Question	Answer/Indicative content	Marks	Guidance
	simply describe the study without using it to explain what it tells us about territory in the workplace will only gain marks in the lower bands.		focused on the question. There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence. A standard response will sit in the middle of this band (i.e., be awarded 7 marks). The answer is essentially accurate. There is adequate description of the key study, and it is applied in the way that the question requires. Broadly speaking, the candidate is correct in what they are saying. However, their answer lacks the extension (detailed knowledge of the study and/or detailed understanding of how to apply it) that typifies answers in the top band. Level 2 (3–5 marks) Response demonstrates limited relevant knowledge and understanding. Limited description lacking in detail. There is some evidence of selection of material to address the question. Response demonstrates a limited application of psychological knowledge and understanding to the question. Application may be related to the general topic area rather than the specific question. The information has some relevance and is presented with limited structure. The information is supported by limited evidence. Answers can be limited for a number of reasons. For example, description of the study may lack the detail (or accuracy) that can be expected of a standard response; the key study may be described but not actually applied in the way that the question requires; the examiner may not be convinced of the candidate's understanding. Level 1 (1–2 marks) Response demonstrates basic knowledge and understanding. Description is basic. There is little evidence of selection of material to address the question. Response demonstrates a basic application of psychological knowledge and understanding to the question. Knowledge will be only partially relevant to the question: responses will be generalised; lacking focus on the question.

STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
					The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear. Answers in this band contain some creditworthy material but essentially are wrong/flawed in what is being said. Level 0 (0 mark) No creditworthy response. Answers in this band contain no creditworthy material. <u>Examiner's Comments</u> The majority of candidates knew the study well enough to gain 5 marks for the outline. When it came to the application marks in part (a), this was generally less well done, either repeating the results, or moving away from the key research. To gain 5 marks, candidates do need to consider how they can apply the study to how this improves our understanding of human behaviour.

STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
	b		Discuss whether research into territory and personal space is ethnocentric. AO1 (2 marks) Candidates should demonstrate knowledge and understanding of ethnocentrism. AO3 (13 marks) Candidates should analyse, interpret and evaluate research into territory and personal space in relation to ethnocentrism. As well as referring to the key research, candidates can refer to other research investigating territory and personal space in the workplace. Discussion points could consider: • The cultures in which research is conducted. • Whether data collection methods are culturally specific. • Whether acknowledgement is made of cultural variation (e.g., in theories) • Whether research is cross-cultural • The extent to which research is biologically-based. • Whether research involves the study of non-human animals Answers can be critical but can also defend the research. Ethnocentrism needs to be evaluated, rather than simply identified and illustrated. Other appropriate responses should be credited.	15	APPENDIX 2 Generic mark scheme for Section B PART (b) QUESTIONS *AO1: Demonstrate knowledge and understanding of scientific ideas, processes, techniques and procedures (2 marks)* *AO3: Analyse, interpret and evaluate scientific information, ideas and evidence (13 marks)* Generic mark scheme (part b) Guidance Level 4 (12–15 marks) Response demonstrates good relevant knowledge and understanding. Response demonstrates many points of analysis, interpretation and evaluation covering a range of issues. The argument is competently organised, balanced and well developed. The answer is explicitly related to the context of the question. Effective use of examples where appropriate. Valid conclusions that effectively summarise issues and argument is highly skilled and shows good understanding. There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated. Answers in this band go beyond what might be expected of a standard, accurate response. For example, the candidate may present intellectually surprising arguments, their arguments may centre on well-informed comparisons of evidence, or they may explore (quantitatively) more arguments than a 'standard' response will. Level 3 (8–11 marks) Response demonstrates good relevant knowledge and understanding. Response demonstrates a reasonable number of points of analysis, interpretation and evaluation covering a range of issues. The argument is well organised, but may lack balance or development, and is related to the context of the question. Reasonable use of examples where appropriate. Valid conclusions that effectively summarise issues and arguments are competent, and understanding is reasonable. There is a

STEMUP.CO.UK

Question	Answer/Indicative content	Marks	Guidance
			line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence. A standard, accurate response will sit in the middle of this band (i.e., be awarded 9-10 marks). Answers in this band are evaluative rather than descriptive, and points made are backed up with relevant supporting evidence. If one evaluative point is explored (with relevant supporting evidence) then it is likely to be awarded 8 marks. If two evaluative points are explored (with relevant supporting evidence) then it is likely to be awarded 9-10 marks. If three evaluative points are explored (with relevant supporting evidence) then it is likely to be awarded 10-11 marks. Level 2 (4–7 marks) Response demonstrates reasonable knowledge and understanding. Response demonstrates a limited number of points of analysis, interpretation and evaluation which are limited in range. Argument and organisation is limited, and some points are related to the context of the question. Some valid conclusions that summarise issues and arguments. Demonstrates some understanding. The information has some relevance and is presented with limited structure. The information is supported by limited evidence. Answers can be limited for a number of reasons. For example, they may be essentially descriptive (rather than evaluative); the examiner may not be convinced that the answer is discussing the relevant concept (e.g., in a question about validity, the candidate's answer may seem to be more about reliability); the response may raise appropriate evaluative points but these may lack relevant supporting evidence. Level 1 (1–3 marks) Response demonstrates reasonable knowledge and understanding. Response demonstrates a few basic points of analysis, interpretation and evaluation. No evidence of argument. Points are not organised and are of

STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
					peripheral relevance to the context of the question. Sparse or no use of supporting examples. Basic or no valid conclusions that attempt to summarise issues and arguments show little understanding. The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear. Answers in this band contain some creditworthy material but it is not used effectively (e.g., in a question about discussion of ethical considerations, ethical guidelines are named but they are not then related to the topic in the question). Level 0 (0 mark) No creditworthy response. Answers in this band contain no creditworthy material. <u>Examiner's Comments</u> Ethnocentrism still causes candidates problems often not going beyond population validity in their answers. Candidates need to consider countries (with implied differences of ethnicity, particularly in eastern/western comparisons). Some responses did this very well, developing an argument as to why countries/cultures may be different in their expectations and experiences of the workplace. The concept of territory is also ethnocentric in itself, and better candidates pointed this out with reference to research from the likes of Smith et al. There was engagement with the discussion of the issue of ethnocentric bias and biological responses for example.

STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
	c		**Outline at least one suggestion, based on research into territory or personal space, that a psychologist might make to Sundip about how to design her office.** **AO2 (10 marks)** Candidates need to apply their knowledge and understanding of at least one office design strategy based on research into territory or personal space. Suggestions could refer to: • The presence of pinboards and/or shelves (to aid personalisation) • Dividers (to demarcate territorial boundaries) • Desks of varying sizes (to accommodate differences in the amounts of territory required, perhaps related to gender and/or culture). • Building in meeting spaces (e.g., to support activity-based working) • Having both closed and open plan spaces. • Answers may extend their focus beyond desks to communal spaces such as eating or toileting areas. Answers could focus in depth on one suggestion or refer to a range of suggestions. It is important that suggestions are: • **related to the context of the question** (i.e., to office ***design*** - e.g. as opposed to *management* of the office) • **based on research into territory or personal space** (e.g. as opposed to noise or views from the window) • proposals that a psychologist might potentially make (so should therefore be within ethical and legal guidelines). Suggestions relating to *management* of the office are creditworthy but should be seen as limited because peripherally relevant (e.g. allowing personalisation is a decision that relates to how the office can be managed, but it implies the presence of office furniture that would support this so in this way it is connected to how the office is *designed*).	10	APPENDIX 3 GENERIC MARK SCHEME FOR SECTION B PART (c) QUESTIONS *AO2: Apply knowledge and understanding of scientific ideas, processes, techniques and procedures (10 marks)* **Generic mark scheme (part c)** **Guidance** **Level 4 (9–10 marks)** Response demonstrates a good application of psychological knowledge and understanding to the question. Application will be explicit, accurate, and relevant to the question. There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated. Answers in this band go beyond what might be expected of a standard, accurate response. This might be because the advice comprises a range of different suggestions (e.g., three or more explained in context and with appropriate psychological rationale for them, e.g. names psychological research, concepts or theories or explicit appropriate psychological terminology). Alternatively, if taking a 'depth' approach, the answer would contain one application and rationale explained in detail, beyond that seen in standard, accurate responses. **Level 3 (6–8 marks)** Response demonstrates a reasonable application of psychological knowledge and understanding to the question. Application will be clear and focused on the question. There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence. A standard, accurate response will sit in the middle of this band (i.e., be awarded 7 marks). Advice put forward by the candidate will be related to the scenario in the question and there will be explicit and appropriate psychological rationale for the advice (e.g., named psychological research, concepts or theories or appropriate psychological terminology). It

STEMUP.CO.UK

Question	Answer/Indicative content	Marks	Guidance
	Other appropriate responses should be credited.		is clear what is being suggested (i.e., it is specific) and why it is being suggested. Candidates can take either a 'breadth' or 'depth' approach (e.g., the advice may comprise two or possibly even three suggestions, but it could equally well centre on one suggestion explained in detail). Level 2 (3–5 marks) Response demonstrates a limited application of psychological knowledge and understanding to the question. Application may relate to the general topic area rather than the specific question. The information has some relevance and is presented with limited structure. The information is supported by limited evidence. Answers can be in this band for a number of reasons. For example, the advice offered may not be related to the scenario in the question (i.e., it may be generic) or it may lack appropriate psychological rationale. It is unclear what is being suggested (i.e., what the precise advice is) or why it is being suggested. Level 1 (1–2 marks) Response demonstrates a basic application of psychological knowledge and understanding to the question. Knowledge will be only partially relevant to the question: Responses will be generalised; lacking focus on the question. The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear. Answers in this band contain some creditworthy material but it is not used effectively (e.g., advice is offered but it is generic and has no psychological rationale behind it). Level 0 (0 mark) No creditworthy response. Answers in this band contain no creditworthy material. <u>Examiner's Comments</u>

STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
					This question tended to evoke responses which consider the management of office space by Sundip as opposed to the planning. Similar to 6(c) last year with the design of a bike park, candidates often made suggestions which were not part of design. Practices such as hot desking, allowing personalisation of workspaces, were peripherally relevant, and so received little credit. Better suggestions looked at desk layout, i.e. enough space around desks, which would be a consideration when designing an office space, but also included the use of colour, seating in the staffroom, and design features to facilitate territory marking and/or personalisation. For a question on design candidates need to consider what they would draw on paper for their suggestion, if you can't draw it, then it's probably not a design feature, more a management technique.
			Total	35	

Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
2	a		**Outline the key research by Black and Black (2007) and use it to explain the impact of environmental stressors on our biological responses.** AO1 (5 marks) Candidates must refer to the key study by Black and Black. Candidates will demonstrate knowledge and understanding of this key study through describing the psychological evidence of the key study appropriately and effectively. AO2 (5 marks) Candidates should *apply* their knowledge and understanding of the study by Black and Black to explain what it tells us about the impact of environmental stressors on our **biological responses**. Answers can be expected to centre on the way in which those living near the airport scored significantly lower on the SF-36 instrument for **physical functioning**, general health, **vitality, and mental health.** Furthermore, residents living near the airport were 2.74 times more likely to have **hypertension** than those in the control group. As these residents had a much higher mean aircraft annoyance score (6.27, against 1.03 for the control group), this shows how an environmental stressor can have a biological effect, via activation of the body's '**fight or flight' response** mechanisms. Less detailed answers or answers that simply describe the study without using it to explain what it tells us about the impact of environmental stressors on our biological responses will only gain marks in the lower Levels. Results can be interpreted assess key features of the study or impact of environmental stressors on biological response The impact has a plurality requirement of stressors on biological responses. Stressors could be two aspects of eg noise, ie level and unpredictability.	10	*AO1: Demonstrate knowledge and understanding of scientific ideas, processes, techniques and procedures (5 marks)* *AO2: Apply knowledge and understanding of scientific ideas, processes, techniques and procedures (5 marks)*

Level	Marks	Generic mark scheme (Part a)	Guidance
4	9 – 10	Response demonstrates good relevant knowledge and understanding. Accurate and reasonably detailed description. There is appropriate selection of material to address the question. Response demonstrates a good application of psychological knowledge and understanding to the question. Application will be explicit, accurate, and relevant to the question. There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.	Answers in this Level go beyond what might be expected of a standard, accurate response. For example, the answer may contain detailed knowledge of the study (e.g. a number of accurate fine details) and/or detailed understanding of how to apply it (e.g. making a number of different, relevant application points, rather than just one application point). Alternatively, answers may 'go beyond' by bringing in additional supporting research (i.e. use more than just the key study to address the question) where the wording of the question permits this.

STEMUP.CO.UK

Question	Answer/Indicative content	Marks	Guidance			
			3	6 – 8	Response demonstrates reasonable relevant knowledge and understanding. Generally accurate description lacking some detail. There is some evidence of selection of material to address the question. Response demonstrates a reasonable application of psychological knowledge and understanding to the question. Application will be clear and focused on the question. There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.	A standard response will sit in the middle of this Level (i.e. be awarded 7 marks). The answer is essentially accurate. There is adequate description of the key study and it is applied in the way that the question requires. Broadly speaking, the candidate is correct in what they are saying. However, their answer lacks the extension (detailed knowledge of the study and/or detailed understanding of how to apply it) that typifies answers in the top Level.
			2	3 – 5	Response demonstrates limited relevant knowledge and understanding. Limited description lacking in detail. There is some evidence of selection of material to address the question.	Answers can be limited for a number of reasons. For example, description of the study may lack the detail (or accuracy) that can be expected of a standard response; the key study may be described

STEMUP.CO.UK

Question	Answer/Indicative content	Marks	Guidance			
					Response demonstrates a limited application of psychological knowledge and understanding to the question. Application may be related to the general topic area rather than the specific question. The information has some relevance and is presented with limited structure. The information is supported by limited evidence.	but not actually applied in the way that the question requires; the examiner may not be convinced of the candidate's understanding.
			1	1 – 2	Response demonstrates basic knowledge and understanding. Description is basic. There is little evidence of selection of material to address the question. Response demonstrates a basic application of psychological knowledge and understanding to the question. Knowledge will be only partially relevant to the question: responses will be generalised; lacking focus on the	Answers in this Level contain some creditworthy material but essentially are wrong/flawed in what is being said.

STEMUP.CO.UK

Question	Answer/Indicative content	Marks	Guidance

		question. The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear.	
0		No creditworthy response.	Answers in this Level contain no creditworthy material.

<u>Examiner's Comments</u>

This option was chosen by very few centres, but the responses to this were generally well done. The clarity of the study here was helpful and the majority of candidates achieved the full AO1 marks. The application was what this tells us about the impact of stressors on biological responses, which was less well done. The response has to focus on environmental stressors (volume and frequency) of noise, and biological responses so specifically health related measures such as physical illness, blood pressure, hormones etc.

STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
	b		**Discuss research into stressors in the environment in relation to ethical considerations.** **AO1 (2 marks)** Candidates should demonstrate knowledge and understanding of ethical considerations. **AO3 (13 marks)** Candidates should analyse, interpret and evaluate research into stressors in the environment in relation to **ethical considerations**. As well as referring to the key research, candidates can refer to research investigating environmental stressors and their impact on our biological responses. Candidates may refer to ethical guidelines in their answer (informed consent, withdrawal, protection from harm, etc.), but stronger responses may go further to consider such issues as whether 'the end justifies the means'. Candidates may be critical in the points they make but, equally, they may defend the ethics of research into stressors in the environment. They can also refer to research involving animals but, if doing this, need to show appreciation of the specific ethical guidelines that apply in this case. Ethical considerations need to be evaluated, rather than simply identified and illustrated. Other appropriate responses should be credited. Can be structured as research each evaluated for ethical considerations or ethical considerations illustrated by research	15	*AO1: Demonstrate knowledge and understanding of scientific ideas, processes, techniques and procedures (2 marks)* *AO3: Analyse, interpret and evaluate scientific information, ideas and evidence (13 marks)*

Level	Marks	Generic mark scheme (part b)	Guidance
4	12–15	Response demonstrates good relevant knowledge and understanding. Response demonstrates many points of analysis, interpretation and evaluation covering a range of issues. The argument is competently organised, balanced and well developed. The answer is explicitly related to the context of the question. Effective use of examples where appropriate. Valid conclusions that effectively summarise issues and argument is highly skilled and shows good understanding. There is a well-developed line of reasoning which is clear and logically structured. The	Answers in this Level go beyond what might be expected of a standard, accurate response. For example, the candidate may present intellectually surprising arguments, their arguments may centre on well-informed comparisons of evidence, or they may explore (quantitatively) more arguments than a 'standard' response will.

STEMUP.CO.UK

Question	Answer/Indicative content	Marks	Guidance			
					information presented is relevant and substantiated.	
			3	8–11	Response demonstrates reasonable relevant knowledge and understanding. Response demonstrates a reasonable number of points of analysis, interpretation and evaluation covering a range of issues. The argument is well organised, but may lack balance or development, and is related to the context of the question. Reasonable use of examples where appropriate. Valid conclusions that effectively summarise issues and arguments are competent and understanding is reasonable. There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.	A standard, accurate response will sit in the middle of this Level (i.e. be awarded 9-10 marks). Answers in this Level are evaluative rather than descriptive, and points made are backed up with relevant supporting evidence. If one evaluative point is explored (with relevant supporting evidence) then it is likely to be awarded 8 marks. If two evaluative points are explored (with relevant supporting evidence) then it is likely to be awarded 9-10 marks. If three evaluative points are explored (with relevant supporting evidence) then it is likely to be awarded 10-11 marks.
			2	4–7	Response demonstrates	Answers can be limited for a

STEMUP.CO.UK

Question	Answer/Indicative content	Marks	Guidance			
					limited knowledge and understanding. Response demonstrates a limited number of points of analysis, interpretation and evaluation which are limited in range. Argument and organisation is limited, and some points are related to the context of the question. Some valid conclusions that summarise issues and arguments. Demonstrates some understanding. The information has some relevance and is presented with limited structure. The information is supported by limited evidence.	number of reasons. For example, they may be essentially descriptive (rather than evaluative); the examiner may not be convinced that the answer is discussing the relevant concept (e.g. in a question about validity, the candidate's answer may seem to be more about reliability); the response may raise appropriate evaluative points but these may lack relevant supporting evidence.
			1	1–3	Response demonstrates basic knowledge and understanding. Response demonstrates a few basic points of analysis, interpretation and evaluation. No evidence of argument. Points are not organised, and	Answers in this Level contain some creditworthy material but it is not used effectively (e.g. in a question about discussion of ethical considerations, ethical guidelines are named but they are not then

STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
					are of peripheral relevance to the context of the question. Sparse or no use of supporting examples. Basic or no valid conclusions that attempt to summarise issues and arguments show little understanding. The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear. — related to the topic in the question).
					0 — No creditworthy response. — Answers in this Level contain no creditworthy material.
					<u>Examiner's Comments</u> Candidates identified ethical considerations and related these to appropriate research, and many candidates did this well and in detail. However, the evaluation of ethical considerations was not done as well. Often the same point of causing harm or vague sentences such as upholding the reputation of psychology, was repeated at the end of each point made. This reduced the level of evaluation in the response, so often limited the response to achieving 8-11 marks.
	c		Outline at least one strategy a	10	*AO2: Apply knowledge and understanding*

STEMUP.CO.UK

Question	Answer/Indicative content	Marks	Guidance
	psychologist might suggest for how Jamal could manage environmental stress to be able to revise effectively for his exams. AO2 (10 marks) Candidates need to apply their knowledge and understanding of at least one strategy for managing environmental stress. Suggestions could take a range of forms. For example, reference could be made to choosing somewhere quiet (e.g. **away from external sources of noise,** such as roads, airports or other people) or making a noisy area seem quiet by wearing noise-cancelling headphones. Reference could also be made to finding somewhere to study based on t**emperature**, type of **lighting** (e.g. LED, rather than fluorescent), **the colour of paint on the walls** and/or how the setting is decorated (e.g. to avoid cognitive overload), and the **amount of people** nearby relative to the space available (to avoid feelings of crowdedness). Whilst reference to choosing a location to study based on such features of the environment is one way of approaching this question, another would be for Jamal to focus on how he experiences the place he studies in. Thus, answers could equally well explore Stress Inoculation Therapy, Cognitive Behavioural Therapy, Rational Emotive Therapy, mindfulness, etc. Answers could focus in depth on one suggestion or make reference to a range of suggestions. It is important that the suggestions are related to the context of the question. Other appropriate responses should be credited. Needs to refer to reduction of stress not increased learning/productivity		*of scientific ideas, processes, techniques and procedures (10 marks)*

Level	Marks	Generic Mark Scheme (part c)	Guidance
4	9 – 10	Response demonstrates a good application of psychological knowledge and understanding to the question. Application will be explicit, accurate, and relevant to the question. There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.	Answers in this Level go beyond what might be expected of a standard, accurate response. This might be because the advice comprises a range of different suggestions (e.g. three or more explained in context and with appropriate psychological rationale for them). Alternatively, if taking a 'depth' approach, the answer would contain application and rationale beyond that seen in standard, accurate responses.
3	6 – 8	Response demonstrates a reasonable application of psychological knowledge and understanding to the question. Application will be clear and focused on the question. There is a line	A standard, accurate response will sit in the middle of this Level (i.e. be awarded 7 marks). Advice put forward by the candidate will be related to the scenario in

STEMUP.CO.UK

Question	Answer/Indicative content	Marks	Guidance			
					of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.	the question and there will be explicit and appropriate psychological rationale for the advice (e.g. named psychological research, concepts or theories). It is clear what is being suggested (i.e. it is specific) and why it is being suggested. Candidates can take either a 'breadth' or 'depth' approach (e.g. the advice may comprise two or possibly even three suggestions, but it could equally well centre on one suggestion explained in detail).
			2	3 – 5	Response demonstrates a limited application of psychological knowledge and understanding to the question. Application may relate to the general topic area rather than the specific question. The information has some relevance and	Answers can be in this Level for a number of reasons. For example, the advice offered may not be related to the scenario in the question (i.e. it may be generic) or it may lack appropriate psychological rationale. It is unclear what is being suggested (i.e.

STEMUP.CO.UK

Question	Answer/Indicative content	Marks	Guidance

		is presented with limited structure. The information is supported by limited evidence.	what the precise advice is) or why it is being suggested.
1	1 – 2	Response demonstrates a basic application of psychological knowledge and understanding to the question. Knowledge will be only partially relevant to the question: Responses will be generalised; lacking focus on the question. The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear.	Answers in this Level contain some creditworthy material but it is not used effectively (e.g. advice is offered but it is generic and has no psychological rationale behind it).
0		No creditworthy response.	Answers in this Level contain no creditworthy material.

<u>Examiner's Comments</u>

The issue with addressing the scenario and question requirements was often seen. The candidate would relate concepts such as context dependent memory, but the question asks for reduction of stress not increase in performance. Better responses considered how Jamal could mitigate stressors such as crowding, noise and heat.

STEMUP.CO.UK

Mark Scheme

Question			Answer/Indicative content	Marks	Guidance
			Total	35	

Question			Answer/Indicative content	Marks	Guidance
3	a		Explain what the key research by Czeisler et al (1982) tells us about biological rhythms. AO1 (5 marks) Candidates must refer to the key study by Czeisler et al. Candidates will demonstrate knowledge and understanding of this key study through describing the psychological evidence of the key study appropriately and effectively. AO2 (5 marks) Candidates should *apply* their knowledge and understanding of the study by Czeisler et al to explain what the study tells us about biological rhythms. Answers can be expected to refer to people's preferences for rotating shifts in a phase delay direction (enabling people to stay awake longer at the time of a change in shifts rather than having to bring forward when they go to bed) and also to a preference for not making changes to shift patterns too frequently. Better answers will go further to connect these preferences to how people have a natural free-running sleep-wake cycle that exceeds 24 hours [at the time of the study, Czeisler claimed an average sleep-wake cycle of 25 hours] and/or to difficulties in training the body to accommodate changes to biological rhythms [Czeisler claimed that any changes greater than 1-2 hours at a time cannot be easily accommodated]. Less detailed answers or answers that simply describe the study without explaining what it tells us about biological rhythms will only gain marks in the lower bands.	10	APPENDIX 1 *AO1: Demonstrate knowledge and understanding of scientific ideas, processes, techniques and procedures (5 marks)* *AO2: Apply knowledge and understanding of scientific ideas, processes, techniques and procedures (5 marks)* Level 4 (Marks 9–10) Response demonstrates good relevant knowledge and understanding. Accurate and reasonably detailed description. There is appropriate selection of material to address the question. Response demonstrates a good application of psychological knowledge and understanding to the question. Application will be explicit, accurate, and relevant to the question. There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated. Guidance Answers in this band go beyond what might be expected of a standard, accurate response. For example, the answer may contain detailed knowledge of the study (e.g. a number of accurate fine details) and/or detailed understanding of how to apply it (e.g. making a number of different, relevant application points, rather than just one application point). Alternatively, answers may 'go beyond' by bringing in additional supporting research (i.e. use more than just the key study to address the question) where the wording of the question permits this. Level 3 (Marks 6–8) Response demonstrates reasonable relevant knowledge and understanding. Generally accurate description lacking some detail. There is some evidence of selection of material to address the question. Response demonstrates a reasonable application of psychological knowledge and understanding to the question.

STEMUP.CO.UK

Question	Answer/Indicative content	Marks	Guidance
			Application will be clear and focused on the question. There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence. Guidance A standard response will sit in the middle of this band (i.e. be awarded 7 marks). The answer is essentially accurate. There is adequate description of the key study and it is applied in the way that the question requires. Broadly speaking, the candidate is correct in what they are saying. However, their answer lacks the extension (detailed knowledge of the study and/or detailed understanding of how to apply it) that typifies answers in the top band. Level 2 (Marks 3–5) Response demonstrates limited relevant knowledge and understanding. Limited description lacking in detail. There is some evidence of selection of material to address the question. Response demonstrates a limited application of psychological knowledge and understanding to the question. Application may be related to the general topic area rather than the specific question. The information has some relevance and is presented with limited structure. The information is supported by limited evidence. Guidance Answers can be limited for a number of reasons. For example, description of the study may lack the detail (or accuracy) that can be expected of a good, standard response; the key study may be described but not actually applied in the way that the question requires; the examiner may not be convinced of the candidate's understanding. Level 1 (Marks 1–2) Response demonstrates basic knowledge and understanding. Description is basic.

STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
					There is little evidence of selection of material to address the question. Response demonstrates a basic application of psychological knowledge and understanding to the question. Knowledge will be only partially relevant to the question: responses will be generalised; lacking focus on the question. The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear. Guidance Answers in this band contain some creditworthy material but essentially are wrong/flawed in what is being said. Marks 0 No creditworthy response. Guidance Answers in this band contain no creditworthy material. <u>Examiner's Comments</u> The key research by Czeisler et al's was often only briefly described, with stages of the study being missed out. This made it more difficult for the application marks to be gained. If, for example, the findings of the study, after the second questionnaire and the 9 month follow up, were not detailed, candidates often couldn't explain what this tells us about biological rhythms. Most candidates, however, knew at least some of the relevant parts of the research. The application of the study to the understanding of biological rhythms could be linked clearly to the findings. The first set of findings refers to how the body doesn't like the changes to the circadian rhythm, and the second questionnaire refers what the body prefers, i.e., what makes a person feel better if they have to work differing shifts. Better responses provided apocopate explanations for some of the findings such as why we might prefer phase delay.

STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
	b		Discuss sampling bias in research into biological rhythms. AO1 (2 marks) Candidates should demonstrate knowledge and understanding of sampling bias. AO3 (13 marks) Candidates should analyse, interpret and evaluate sampling bias in research into biological rhythms. As well as referring to the key research, candidates can refer to research investigating biological rhythms and the impact of their disruption on our behaviour. Any relevant research is creditworthy. Sampling bias can be explored as an issue in terms of the type of work done by participants, the gender of participants, the age range of participants, etc. Research done on non-human animals can also be seen as raising issues as what is true of one species may not necessarily be true of other species. The size of a sample can also be raised as an issue, particularly if the research is a case study of an individual who may not be representative of people in general, as can the sampling method. Candidates may argue for or against sampling bias in research into biological rhythms (e.g. the biological basis of such rhythms may be referred to within arguments to the effect that sampling bias need not be seen as a problem). Points about sampling bias need to be discussed, rather than simply identified and illustrated. Other appropriate responses should be credited.	15	APPENDIX 2 *AO1: Demonstrate knowledge and understanding of scientific ideas, processes, techniques and procedures (2 marks)* *AO3: Analyse, interpret and evaluate scientific information, ideas and evidence (13 marks)* Level 4 (Marks 12–15) Response demonstrates good relevant knowledge and understanding. Response demonstrates many points of analysis, interpretation and evaluation covering a range of issues. The argument is competently organised, balanced and well developed. The answer is explicitly related to the context of the question. Effective use of examples where appropriate. Valid conclusions that effectively summarise issues and argument is highly skilled and shows good understanding. There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated. Guidance Answers in this band go beyond what might be expected of a standard, accurate response. For example, the candidate may present intellectually surprising arguments, their arguments may centre on well-informed comparisons of evidence, or they may explore (quantitatively) more arguments than a 'standard' response will. Level 3 (Marks 8–11) Response demonstrates good relevant knowledge and understanding. Response demonstrates a reasonable number of points of analysis, interpretation and evaluation covering a range of issues. The argument is well organised, but may lack balance or development, and is related to the context of the question. Reasonable use of examples where appropriate. Valid conclusions that effectively summarise issues and arguments are competent and understanding is reasonable. There is a line of reasoning presented with

STEMUP.CO.UK

Question	Answer/Indicative content	Marks	Guidance
			some structure. The information presented is in the most-part relevant and supported by some evidence. Guidance A standard, accurate response will sit in the middle of this band (i.e. be awarded 9-10 marks). Answers in this band are evaluative rather than descriptive, and points made are backed up with relevant supporting evidence. If one evaluative point is explored (with relevant supporting evidence) then it is likely to be awarded 8 marks. If two evaluative points are explored (with relevant supporting evidence) then it is likely to be awarded 9–10 marks. If three evaluative points are explored (with relevant supporting evidence) then it is likely to be awarded 10–11 marks. Level 2 (Marks 4–7) Response demonstrates reasonable knowledge and understanding. Response demonstrates a limited number of points of analysis, interpretation and evaluation which are limited in range. Argument and organisation is limited, and some points are related to the context of the question. Some valid conclusions that summarise issues and arguments. Demonstrates some understanding. The information has some relevance and is presented with limited structure. The information is supported by limited evidence. Guidance Answers can be limited for a number of reasons. For example, they may be essentially descriptive (rather than evaluative); the examiner may not be convinced that the answer is discussing the relevant concept (e.g. in a question about validity, the candidate's answer may seem to be more about reliability); the response may raise appropriate evaluative points but these may lack relevant supporting evidence. Level 1 (Marks 1–3) Response demonstrates reasonable knowledge and understanding. Response demonstrates a few basic points of analysis, interpretation and

STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
					evaluation. No evidence of argument. Points are not organised, and are of peripheral relevance to the context of the question. Sparse or no use of supporting examples. Basic or no valid conclusions that attempt to summarise issues and arguments show little understanding. The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear. Guidance Answers in this band contain some creditworthy material but it is not used effectively (e.g. in a question about discussion of ethical considerations, ethical guidelines are named but they are not then related to the topic in the question). Marks 0 No creditworthy response. Guidance Answers in this band contain no creditworthy material. <u>Examiner's Comments</u> The research in this topic lends itself readily to answering a question on sampling bias, and most candidates could do this, identifying types of bias: gender, age, occupation, and location. This was then exemplified with research, but the commentary or analysis was missing in many responses. One obvious point which could be made is the universality of biological rhythms within a discussion of why sample bias might then not be an issue. Most candidates could identify the lack of generalisability but this tended to be offered repeatedly at the end of each point raised. To gain higher marks candidates need to engage with the lack of generalisability and its impact, consequences, defence, and comparability. Responses that lacked any evaluation, and so were purely describing research that has an identifiable sample bias, were generally capped at Level 2.

STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
	c		Outline at least one strategy for how Azmi can try to reduce the effects of shift work or jet lag upon them. AO2 (10 marks) Candidates need to apply their knowledge and understanding of at least one strategy for reducing effects of jet-lag or shift work. Suggestions could centre on Azmi being advised in the days before flying to alter their sleep patterns to fit in with the shift patterns they will be following and/or the time zone of the country (or countries) they are travelling to. Azmi could also be advised to take melatonin supplements after the flight to help them get to sleep (particularly if they have been travelling in an eastwards direction and need to go to sleep earlier than their body would naturally expect to). Alternatively, Azmi could be advised to make use of a light box to help them stay awake. Suggestions that centre on Azmi requesting of their employer that changes in their shift pattern rotate in a phase delay direction and, ideally, are maintained for several weeks rather than being changed again after only a few days are also creditworthy. It is important that the suggestions are related to the context of the question. Other appropriate responses should be credited.	10	APPENDIX 3 *AO2: Apply knowledge and understanding of scientific ideas, processes, techniques and procedures (10 marks)* Level 4 (Marks 9–10) Response demonstrates a good application of psychological knowledge and understanding to the question. Application will be explicit, accurate, and relevant to the question. There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated. Guidance Answers in this band go beyond what might be expected of a standard, accurate response. This might be because the advice comprises a range of different suggestions (e.g. three or more explained in context and with appropriate psychological rationale for them). Alternatively, if taking a 'depth' approach, the answer would contain application and rationale beyond that seen in standard, accurate responses. Level 3 (Marks 6–8) Response demonstrates a reasonable application of psychological knowledge and understanding to the question. Application will be clear and focused on the question. There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence. Guidance A standard, accurate response will sit in the middle of this band (i.e. be awarded 7 marks). Advice put forward by the candidate will be related to the scenario in the question and there will be explicit and appropriate psychological rationale for the advice (e.g. named psychological research, concepts or theories). It is clear what is being suggested (i.e. it is specific) and why it is

STEMUP.CO.UK

Question	Answer/Indicative content	Marks	Guidance
			being suggested. Candidates can take either a 'breadth' or 'depth' approach (e.g. the advice may comprise two or possibly even three suggestions, but it could equally well centre on one suggestion explained in detail). Level 2 (Marks 3–5) Response demonstrates a limited application of psychological knowledge and understanding to the question. Application may relate to the general topic area rather than the specific question. The information has some relevance and is presented with limited structure. The information is supported by limited evidence. Guidance Answers can be in this band for a number of reasons. For example, the advice offered may not be related to the scenario in the question (i.e. it may be generic) or it may lack appropriate psychological rationale. It is unclear what is being suggested (i.e. what the precise advice is) or why it is being suggested. Level 1 (Marks 1–2) Response demonstrates a basic application of psychological knowledge and understanding to the question. Knowledge will be only partially relevant to the question: Responses will be generalised; lacking focus on the question. The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear. Guidance Answers in this band contain some creditworthy material but it is not used effectively (e.g. advice is offered but it is generic and has no psychological rationale behind it). Level 0 Marks No creditworthy response. Guidance

STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
					Answers in this band contain no creditworthy material. <u>Examiner's Comments</u> Amzi worked as cabin crew and this should have guided candidates to appropriate suggestions. Many candidates recognised this with reference to travelling to time zones which changed circadian rhythms in a phase delay direction. Candidates generally made one or two suggestions but these lacked specific details. Rationale could include actions of melatonin or research into the effects of melatonin. Overall, this question was answered better than the question c on the other options.
			Total	35	

Question			Answer/Indicative content	Marks	Guidance
4	a		Outline the key research by Lord (1994) and explain what it tells us about factors that influence recycling behaviour. AO1 (5 marks) Candidates must refer to the key study by Lord. Candidates will demonstrate knowledge and understanding of this key study through describing the psychological evidence of the key study appropriately and effectively. AO2 (5 marks) Candidates should *apply* their knowledge and understanding of the study by Lord to explain what it tells us about factors that influence recycling behaviour. Answers are likely to separate out message approach (positively framed versus negatively framed) from message source (advertisement, newspaper article, personal letter). With regard to findings, "Although positive appeals yielded most favourable levels of beliefs and attitude toward recycling, the greatest increase in recycling behaviour came in response to a negatively framed message conveyed by a personal acquaintance" (Lord, p341). The best answers will make a distinction between attitudes, beliefs and behaviour, and focus on what the study tells us in terms of how message approach and message source can affect recycling *behaviour*. Less detailed answers or answers that simply describe the study without using it to explain what it tells us about factors that influence recycling behaviour will only gain marks in the lower bands.	10	APPENDIX 1 Generic mark scheme for Section B PART (a) QUESTIONS *AO1: Demonstrate knowledge and understanding of scientific ideas, processes, techniques and procedures (5 marks)* *AO2: Apply knowledge and understanding of scientific ideas, processes, techniques and procedures (5 marks)* Level 4 (9 – 10 Marks) Generic mark scheme (Part a) Response demonstrates good relevant knowledge and understanding. Accurate and reasonably detailed description. There is appropriate selection of material to address the question. Response demonstrates a good application of psychological knowledge and understanding to the question. Application will be explicit, accurate, and relevant to the question. There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated. Guidance Answers in this band go beyond what might be expected of a standard, accurate response. For example, the answer may contain detailed knowledge of the study (e.g. a number of accurate fine details) and / or detailed understanding of how to apply it (e.g. making a number of different, relevant application points, rather than just one application point). Alternatively, answers may 'go beyond' by bringing in additional supporting research (i.e. use more than just the key study to address the question) where the wording of the question permits this. Level 3 (6 – 8 Marks) Generic mark scheme (Part a) Response demonstrates reasonable relevant knowledge and understanding. Generally accurate description lacking some detail. There is some evidence of selection of material to address the question. Response demonstrates a reasonable application of psychological knowledge and understanding to the question. Application will be clear and focused on the question.

STEMUP.CO.UK

Question	Answer/Indicative content	Marks	Guidance
			There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence. Guidance A standard response will sit in the middle of this band (i.e. be awarded 7 marks). The answer is essentially accurate. There is adequate description of the key study and it is applied in the way that the question requires. Broadly speaking, the candidate is correct in what they are saying. However, their answer lacks the extension (detailed knowledge of the study and / or detailed understanding of how to apply it) that typifies answers in the top band. Level 2 (3 – 5 Marks) Generic mark scheme (Part a) Response demonstrates limited relevant knowledge and understanding. Limited description lacking in detail. There is some evidence of selection of material to address the question. Response demonstrates a limited application of psychological knowledge and understanding to the question. Application may be related to the general topic area rather than the specific question. The information has some relevance and is presented with limited structure. The information is supported by limited evidence. Guidance Answers can be limited for a number of reasons. For example, description of the study may lack the detail (or accuracy) that can be expected of a standard response; the key study may be described but not actually applied in the way that the question requires; the examiner may not be convinced of the candidate's understanding. Level 1 (1 – 2 Marks) Generic mark scheme (Part a) Response demonstrates basic knowledge and understanding. Description is basic. There is little evidence of selection of material to address the question. Response demonstrates a basic application of psychological knowledge and understanding to the question. Knowledge will be only partially relevant to

STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
					the question responses will be generalised; lacking focus on the question. The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear. Guidance Answers in this band contain some creditworthy material but essentially are wrong / flawed in what is being said. Level 0 (0 Marks) Generic mark scheme (Part a) No creditworthy response. Guidance Answers in this band contain no creditworthy material.
	b		Discuss the freewill / determinism debate in relation to research into recycling and other conservation behaviours. AO1 (2 marks) Candidates should demonstrate knowledge and understanding of the freewill / determinism debate. AO3 (13 marks) Candidates should analyse, interpret and evaluate research into recycling and other conservation behaviours in relation to the freewill / determinism debate. As well as referring to the key research, candidates can refer to research investigating conservation behaviours and the factors which influence the tendency to conserve or recycle. Any relevant research is creditworthy. Reference could be made to how recycling and other conservation behaviours can be determined at different stages and in different ways (e.g. at the antecedent stage through prompts, social norms, etc., or at the consequent stage through feedback, bottle deposit schemes, etc.). However, as none of these methods are likely to result in everyone behaving in the same way to the same extent, it can be argued that they are not fully determinist and that there is therefore evidence of freewill. Candidates may argue for freewill or determinism in relation to research into recycling and other conservation behaviours. Points about the freewill / determinism debate need to be	15	APPENDIX 2 Generic mark scheme for Section B PART (b) QUESTIONS *AO1: Demonstrate knowledge and understanding of scientific ideas, processes, techniques and procedures (2 marks)* *AO3: Analyse, interpret and evaluate scientific information, ideas and evidence (13 marks)* Level 4 (12–15 Marks) Generic mark scheme (part b) Response demonstrates good relevant knowledge and understanding. Response demonstrates many points of analysis, interpretation and evaluation covering a range of issues. The argument is competently organised, balanced and well developed. The answer is explicitly related to the context of the question. Effective use of examples where appropriate. Valid conclusions that effectively summarise issues and argument is highly skilled and shows good understanding. There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated. Guidance Answers in this band go beyond what might be expected of a standard, accurate response. For example, the candidate may present intellectually surprising arguments, their arguments may centre on well-

STEMUP.CO.UK

Question	Answer/Indicative content	Marks	Guidance
	discussed, rather than simply identified and illustrated. Other appropriate responses should be credited.		informed comparisons of evidence, or they may explore (quantitatively) more arguments than a 'standard' response will. Level 3 (8–11 Marks) Generic mark scheme (part b) Response demonstrates good relevant knowledge and understanding. Response demonstrates a reasonable number of points of analysis, interpretation and evaluation covering a range of issues. The argument is well organised, but may lack balance or development, and is related to the context of the question. Reasonable use of examples where appropriate. Valid conclusions that effectively summarise issues and arguments are competent and understanding is reasonable. There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence. Guidance A standard, accurate response will sit in the middle of this band (i.e. be awarded 9-10 marks). Answers in this band are evaluative rather than descriptive, and points made are backed up with relevant supporting evidence. If one evaluative point is explored (with relevant supporting evidence) then it is likely to be awarded 8 marks. If two evaluative points are explored (with relevant supporting evidence) then it is likely to be awarded 9-10 marks. If three evaluative points are explored (with relevant supporting evidence) then it is likely to be awarded 10-11 marks. Level 2 (4–7 Marks) Generic mark scheme (part b) Response demonstrates reasonable knowledge and understanding. Response demonstrates a limited number of points of analysis, interpretation and evaluation which are limited in range. Argument and organisation is limited, and some points are related to the context of the question. Some valid conclusions that summarise issues and arguments. Demonstrates some understanding. The information has some relevance and is presented with limited structure. The

STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
					information is supported by limited evidence. Guidance Answers can be limited for a number of reasons. For example, they may be essentially descriptive (rather than evaluative); the examiner may not be convinced that the answer is discussing the relevant concept (e.g. in a question about validity, the candidate's answer may seem to be more about reliability); the response may raise appropriate evaluative points but these may lack relevant supporting evidence. Level 1 (1–3 Marks) Generic mark scheme (part b) Response demonstrates reasonable knowledge and understanding. Response demonstrates a few basic points of analysis, interpretation and evaluation. No evidence of argument. Points are not organised, and are of peripheral relevance to the context of the question. Sparse or no use of supporting examples. Basic or no valid conclusions that attempt to summarise issues and arguments show little understanding. The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear. Guidance Answers in this band contain some creditworthy material but it is not used effectively (e.g. in a question about discussion of ethical considerations, ethical guidelines are named but they are not then related to the topic in the question). Level 0 (0 Marks) Generic mark scheme (part b) No creditworthy response. Guidance Answers in this band contain no creditworthy material.
	c		Outline at least one technique a psychologist might advise Kai to use to get people using less water. AO2 (10 marks) Candidates need to apply their knowledge	10	APPENDIX 3 GENERIC MARK SCHEME FOR SECTION B PART (c) QUESTIONS *AO2: Apply knowledge and understanding of scientific ideas, processes, techniques and procedures (10 marks)*

STEMUP.CO.UK

Question	Answer/Indicative content	Marks	Guidance
	and understanding of at least one technique used to increase recycling or other conservation behaviour. Suggestions could take a range of forms (e.g. antecedent or consequent; behavioural or cognitive) and could focus in depth on one technique or make reference to a range of techniques. Either way, the focus must be on getting people using less water. Suggestions involving advertisements, newspaper articles or letters from people they know could be relevant. It is important that the suggestions are related to the context of the question. Other appropriate responses should be credited.		Level 4 (9 – 10 Marks) Generic Mark Scheme (part c) Response demonstrates a good application of psychological knowledge and understanding to the question. Application will be explicit, accurate, and relevant to the question. There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated. Guidance Answers in this band go beyond what might be expected of a standard, accurate response. This might be because the advice comprises a range of different suggestions (e.g. three or more explained in context and with appropriate psychological rationale for them). Alternatively, if taking a 'depth' approach, the answer would contain application and rationale beyond that seen in standard, accurate responses. Level 3 (6 – 8 Marks) Generic Mark Scheme (part c) Response demonstrates a reasonable application of psychological knowledge and understanding to the question. Application will be clear and focused on the question. There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence. Guidance A standard, accurate response will sit in the middle of this band (i.e. be awarded 7 marks). Advice put forward by the candidate will be related to the scenario in the question and there will be explicit and appropriate psychological rationale for the advice (e.g. named psychological research, concepts or theories). It is clear what is being suggested (i.e. it is specific) and why it is being suggested. Candidates can take either a 'breadth' or 'depth' approach (e.g. the advice may comprise two or possibly even three suggestions, but it could equally well centre on one suggestion explained in detail).

STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
					Level 2 (3 – 5 Marks) Generic Mark Scheme (part c) Response demonstrates a limited application of psychological knowledge and understanding to the question. Application may relate to the general topic area rather than the specific question. The information has some relevance and is presented with limited structure. The information is supported by limited evidence. Guidance Answers can be in this band for a number of reasons. For example, the advice offered may not be related to the scenario in the question (i.e. it may be generic) or it may lack appropriate psychological rationale. It is unclear what is being suggested (i.e. what the precise advice is) or why it is being suggested. Level 1 (1 – 2 Marks) Generic Mark Scheme (part c) Response demonstrates a basic application of psychological knowledge and understanding to the question. Knowledge will be only partially relevant to the question Responses will be generalised; lacking focus on the question. The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear. Guidance Answers in this band contain some creditworthy material but it is not used effectively (e.g. advice is offered but it is generic and has no psychological rationale behind it). Level 0 (0 Marks) Generic Mark Scheme (part c) No creditworthy response. Guidance Answers in this band contain no creditworthy material.
			Total	35	

Question			Answer/Indicative content	Marks	Guidance
5	a		Outline the key research by Black and Black (2007) and explain what it tells us about environmental stressors. AO1 (5 marks) Candidates must refer to the key study by Black and Black. Candidates will demonstrate knowledge and understanding of this key study through describing the psychological evidence of the key study appropriately and effectively. AO2 (5 marks) Candidates should *apply* their knowledge and understanding of the study by Black and Black to explain what it tells us about environmental stressors. Answers can be expected to focus on noise as an environmental stressor. Reference could be made to the negative health effects of noise and how it is associated with reduced physical functioning, general health, vitality and mental health (as self-reported through the SF-36 instrument). Reference can also be made to how aircraft noise was found to be annoying by those exposed to it (mean score of 6.27 for those exposed to it, compared to 1.03 for the control group). Noise exposure on a long-term basis was associated with chronic noise stress which in turn was associated with hypertension. Less detailed answers or answers that simply describe the study without using it to explain the what it tells us about environmental stressors will only gain marks in the lower bands.	10	APPENDIX 1 Generic mark scheme for Section B PART (a) QUESTIONS *AO1: Demonstrate knowledge and understanding of scientific ideas, processes, techniques and procedures (5 marks)* *AO2: Apply knowledge and understanding of scientific ideas, processes, techniques and procedures (5 marks)* Level 4 (9 – 10 Marks) Generic Mark Scheme (part a) Response demonstrates good relevant knowledge and understanding. Accurate and reasonably detailed description. There is appropriate selection of material to address the question. Response demonstrates a good application of psychological knowledge and understanding to the question. Application will be explicit, accurate, and relevant to the question. There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated. Guidance Answers in this band go beyond what might be expected of a standard, accurate response. For example, the answer may contain detailed knowledge of the study (e.g. a number of accurate fine details) and/or detailed understanding of how to apply it (e.g. making a number of different, relevant application points, rather than just one application point). Alternatively, answers may 'go beyond' by bringing in additional supporting research (i.e. use more than just the key study to address the question) where the wording of the question permits this. Level 3 (6 – 8 Marks) Generic Mark Scheme (part a) Response demonstrates reasonable relevant knowledge and understanding. Generally accurate description lacking some detail. There is some evidence of selection of material to address the question.

STEMUP.CO.UK

Question	Answer/Indicative content	Marks	Guidance
			Response demonstrates a reasonable application of psychological knowledge and understanding to the question. Application will be clear and focused on the question. There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence. Guidance A standard response will sit in the middle of this band (i.e. be awarded 7 marks). The answer is essentially accurate. There is adequate description of the key study and it is applied in the way that the question requires. Broadly speaking, the candidate is correct in what they are saying. However, their answer lacks the extension (detailed knowledge of the study and/or detailed understanding of how to apply it) that typifies answers in the top band. Level 2 (3 – 5 Marks) Generic Mark Scheme (part a) Response demonstrates limited relevant knowledge and understanding. Limited description lacking in detail. There is some evidence of selection of material to address the question. Response demonstrates a limited application of psychological knowledge and understanding to the question. Application may be related to the general topic area rather than the specific question. The information has some relevance and is presented with limited structure. The information is supported by limited evidence. Guidance Answers can be limited for a number of reasons. For example, description of the study may lack the detail (or accuracy) that can be expected of a good, standard response; the key study may be described but not actually applied in the way that the question requires; the examiner may not be convinced of the candidate's understanding.

STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
					Level 1 (1 – 2 Marks) Generic Mark Scheme (part a) Response demonstrates basic knowledge and understanding. Description is basic. There is little evidence of selection of material to address the question. Response demonstrates a basic application of psychological knowledge and understanding to the question. Knowledge will be only partially relevant to the question: responses will be generalised; lacking focus on the question. The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear. Guidance Answers in this band contain some creditworthy material but essentially are wrong/flawed in what is being said. Level 0 Generic Mark Scheme (part a) No creditworthy response. Guidance Answers in this band contain no creditworthy material.

STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
	b		Discuss the reductionism/holism debate in relation to research into stressors in the environment. AO1 (2 marks) Candidates should demonstrate knowledge and understanding of the reductionism/holism debate. AO3 (13 marks) Candidates should analyse, interpret and evaluate research into stressors in the environment in relation to the reductionism/holism debate. As well as referring to the key research, candidates can refer to research investigating environmental stressors and their impact on our biological responses. Any relevant research is creditworthy. Candidates may note how research in this area typically identifies one aspect of the environment at a time to find out the extent to which (and the ways in which) that particular factor can be a cause of stress. Such factors can include noise, temperature and overcrowding. On the other side of the debate, it may be noted that studies can be holistic, such as by collecting data on a range of different variables (e.g. biological, cognitive, behavioural, etc.) or by investigating which of varying environmental stressors is having the strongest negative effect. Candidates may argue for reductionism/holism in relation to research into stressors in the environment. Points about the reductionism/holism debate need to be discussed, rather than simply identified and illustrated. Other appropriate responses should be credited.	15	APPENDIX 2 GENERIC MARK SCHEME FOR SECTION B PART (b) QUESTIONS *AO1: Demonstrate knowledge and understanding of scientific ideas, processes, techniques and procedures (2 marks)* *AO3: Analyse, interpret and evaluate scientific information, ideas and evidence (13 marks)* Level 4 (12 – 15 Marks) Generic Mark Scheme (part b) Response demonstrates good relevant knowledge and understanding. Response demonstrates many points of analysis, interpretation and evaluation covering a range of issues. The argument is competently organised, balanced and well developed. The answer is explicitly related to the context of the question. Effective use of examples where appropriate. Valid conclusions that effectively summarise issues and argument is highly skilled and shows good understanding. There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated. Guidance Answers in this band go beyond what might be expected of a standard, accurate response. For example, the candidate may present intellectually surprising arguments, their arguments may centre on well-informed comparisons of evidence, or they may explore (quantitatively) more arguments than a 'standard' response will. Level 3 (8 – 11 Marks) Generic Mark Scheme (part b) Response demonstrates good relevant knowledge and understanding. Response demonstrates a reasonable number of points of analysis, interpretation and evaluation covering a range of issues. The argument is well organised, but may lack balance or development, and is related to the context of the question. Reasonable use of examples where appropriate. Valid conclusions that effectively summarise issues and

STEMUP.CO.UK

Question	Answer/Indicative content	Marks	Guidance
			arguments are competent and understanding is reasonable. There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence. Guidance A standard, accurate response will sit in the middle of this band (i.e. be awarded 9-10 marks). Answers in this band are evaluative rather than descriptive, and points made are backed up with relevant supporting evidence. If one evaluative point is explored (with relevant supporting evidence) then it is likely to be awarded 8 marks. If two evaluative points are explored (with relevant supporting evidence) then it is likely to be awarded 9-10 marks. If three evaluative points are explored (with relevant supporting evidence) then it is likely to be awarded 10-11 marks. Level 2 (4 – 7 Marks) Generic Mark Scheme (part b) Response demonstrates reasonable knowledge and understanding. Response demonstrates a limited number of points of analysis, interpretation and evaluation which are limited in range. Argument and organisation is limited, and some points are related to the context of the question. Some valid conclusions that summarise issues and arguments. Demonstrates some understanding. The information has some relevance and is presented with limited structure. The information is supported by limited evidence. Guidance Answers can be limited for a number of reasons. For example, they may be essentially descriptive (rather than evaluative); the examiner may not be convinced that the answer is discussing the relevant concept (e.g. in a question about validity, the candidate's answer may seem to be more about reliability); the response may raise appropriate evaluative points but these may lack relevant supporting evidence. Level 1 (1 – 3 Marks)

STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
					Generic Mark Scheme (part b) Response demonstrates reasonable knowledge and understanding. Response demonstrates a few basic points of analysis, interpretation and evaluation. No evidence of argument. Points are not organised, and are of peripheral relevance to the context of the question. Sparse or no use of supporting examples. Basic or no valid conclusions that attempt to summarise issues and arguments show little understanding. The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear. Guidance Answers in this band contain some creditworthy material but it is not used effectively (e.g. in a question about discussion of ethical considerations, ethical guidelines are named but they are not then related to the topic in the question). Level 0 Generic Mark Scheme (part b) No creditworthy response. Guidance Answers in this band contain no creditworthy material.
	c		Outline at least one strategy for managing environmental stress that a psychologist might suggest to commuters like Simon. AO2 (10 marks) Candidates need to apply their knowledge and understanding of at least one strategy for managing environmental stress. There are a wide range of suggestions that could be made based on different environmental stressors that could affect commuters. For example, if travelling by car, reference could be made to commuters turning the radio off so that they are in a quiet environment and/or adjusting the temperature of their vehicle's cabin to ensure it isn't too hot. If travelling by train, commuters could be advised to arrive early to improve their chances of obtaining a seat (something which might help to address feelings of being overcrowded).	10	APPENDIX 3 GENERIC MARK SCHEME FOR SECTION B PART (c) QUESTIONS *AO2: Apply knowledge and understanding of scientific ideas, processes, techniques and procedures (10 marks)* Level 4 (9 – 10 Marks) Generic Mark Scheme (part c) Response demonstrates a good application of psychological knowledge and understanding to the question. Application will be explicit, accurate, and relevant to the question. There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated. Guidance

STEMUP.CO.UK

Question	Answer/Indicative content	Marks	Guidance
	Alternatively, taking greener routes can reduce environmental stress. Emotion-focused strategies such as various forms of cognitive behavioural therapy can also be referred to (e.g. stress inoculation therapy). It is important that the suggestions are related to the context of the question. Other appropriate responses should be credited.		Answers in this band go beyond what might be expected of a standard, accurate response. This might be because the advice comprises a range of different suggestions (e.g. three or more explained in context and with appropriate psychological rationale for them). Alternatively, if taking a 'depth' approach, the answer would contain application and rationale beyond that seen in standard, accurate responses. **Level 3 (6 – 8 Marks)** **Generic Mark Scheme (part c)** Response demonstrates a reasonable application of psychological knowledge and understanding to the question. Application will be clear and focused on the question. There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence. **Guidance** A standard, accurate response will sit in the middle of this band (i.e. be awarded 7 marks). Advice put forward by the candidate will be related to the scenario in the question and there will be explicit and appropriate psychological rationale for the advice (e.g. named psychological research, concepts or theories). It is clear what is being suggested (i.e. it is specific) and why it is being suggested. Candidates can take either a 'breadth' or 'depth' approach (e.g. the advice may comprise two or possibly even three suggestions, but it could equally well centre on one suggestion explained in detail). **Level 2 (3 – 5 Marks)** **Generic Mark Scheme (part c)** Response demonstrates a limited application of psychological knowledge and understanding to the question. Application may relate to the general topic area rather than the specific question. The information has some relevance and is presented with limited structure. The information is supported by limited evidence.

STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
					Guidance Answers can be in this band for a number of reasons. For example, the advice offered may not be related to the scenario in the question (i.e. it may be generic) or it may lack appropriate psychological rationale. It is unclear what is being suggested (i.e. what the precise advice is) or why it is being suggested. Level 1 (1 – 2 Marks) Generic Mark Scheme (part c) Response demonstrates a basic application of psychological knowledge and understanding to the question. Knowledge will be only partially relevant to the question: Responses will be generalised; lacking focus on the question. The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear. Guidance Answers in this band contain some creditworthy material but it is not used effectively (e.g. advice is offered but it is generic and has no psychological rationale behind it). Level 0 Generic Mark Scheme (part c) No creditworthy response. Guidance Answers in this band contain no creditworthy material.
			Total	35	

Question			Answer/Indicative content	Marks	Guidance
6	a		Discuss the reliability of research into ergonomics (human factors). AO1 (2 marks) Candidates should demonstrate knowledge and understanding of reliability. AO3 (13 marks) Candidates should analyse, interpret and evaluate the reliability of research into ergonomics (human factors). As well as referring to the key research, candidates can refer to research investigating cognitive overload and the impact of observation in the workplace environment. Any relevant research is creditworthy. Reliability issues can arise in a number of ways, such as through the use of technical equipment, standardised procedures, the use of multiple items (e.g. scenarios) to measure the same variable, carefully operationalised coding frames within observations, the use of large samples, testing and retesting, or through whether findings are supported in follow-up studies. Candidates may argue for or against the reliability of research into ergonomics (human factors). Points about reliability need to be discussed, rather than simply identified and illustrated. Other appropriate responses should be credited.	15	APPENDIX 2 GENERIC MARK SCHEME FOR SECTION B PART (b) QUESTIONS *AO1: Demonstrate knowledge and understanding of scientific ideas, processes, techniques and procedures (2 marks)* *AO3: Analyse, interpret and evaluate scientific information, ideas and evidence (13 marks)* Level 4 (12–15 Marks) Generic Mark Scheme (part b) Response demonstrates good relevant knowledge and understanding. Response demonstrates many points of analysis, interpretation and evaluation covering a range of issues. The argument is competently organised, balanced and well developed. The answer is explicitly related to the context of the question. Effective use of examples where appropriate. Valid conclusions that effectively summarise issues and argument is highly skilled and shows good understanding. There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated. Guidance Answers in this band go beyond what might be expected of a standard, accurate response. For example, the candidate may present intellectually surprising arguments, their arguments may centre on well-informed comparisons of evidence, or they may explore (quantitatively) more arguments than a 'standard' response will. Level 3 (8–11 Marks) Generic Mark Scheme (part b) Response demonstrates good relevant knowledge and understanding. Response demonstrates a reasonable number of points of analysis, interpretation and evaluation covering a range of issues. The argument is well organised, but may lack balance or development, and is related to the context of the question. Reasonable use of examples where appropriate. Valid conclusions that effectively summarise issues and

STEMUP.CO.UK

Question	Answer/Indicative content	Marks	Guidance
			arguments are competent and understanding is reasonable. There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence. Guidance A standard, accurate response will sit in the middle of this band (i.e. be awarded 9-10 marks). Answers in this band are evaluative rather than descriptive, and points made are backed up with relevant supporting evidence. If one evaluative point is explored (with relevant supporting evidence) then it is likely to be awarded 8 marks. If two evaluative points are explored (with relevant supporting evidence) then it is likely to be awarded 9-10 marks. If three evaluative points are explored (with relevant supporting evidence) then it is likely to be awarded 10-11 marks. Level 2 (4–7 Marks) Generic Mark Scheme (part b) Response demonstrates reasonable knowledge and understanding. Response demonstrates a limited number of points of analysis, interpretation and evaluation which are limited in range. Argument and organisation is limited, and some points are related to the context of the question. Some valid conclusions that summarise issues and arguments. Demonstrates some understanding. The information has some relevance and is presented with limited structure. The information is supported by limited evidence. Guidance Answers can be limited for a number of reasons. For example, they may be essentially descriptive (rather than evaluative); the examiner may not be convinced that the answer is discussing the relevant concept (e.g. in a question about validity, the candidate's answer may seem to be more about reliability); the response may raise appropriate evaluative points but these may lack relevant supporting evidence. Level 1 (1–3 Marks)

STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
					Generic Mark Scheme (part b) Response demonstrates reasonable knowledge and understanding. Response demonstrates a few basic points of analysis, interpretation and evaluation. No evidence of argument. Points are not organised, and are of peripheral relevance to the context of the question. Sparse or no use of supporting examples. Basic or no valid conclusions that attempt to summarise issues and arguments show little understanding. The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear. Guidance Answers in this band contain some creditworthy material but it is not used effectively (e.g. in a question about discussion of ethical considerations, ethical guidelines are named but they are not then related to the topic in the question). Level 0 Generic Mark Scheme (part b) No creditworthy response. Guidance Answers in this band contain no creditworthy material. <u>Examiner's Comments</u> At their best, responses were precise, exemplified, explained and taken further (discussed). All too often, whether the candidate understood reliability was uncertain, as their answers were very general and could equally have related to validity, or worse there was clear confusion with validity. Answers often only used the Drews and Doig study and other research should be used as evidence to access higher marks.

STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
	b		What advice might a psychologist give Ranjit about how to apply ergonomic research to the design of this new workplace? AO2 (10 marks) Candidates need to apply their knowledge and understanding of workplace design based on ergonomic research. There are a wide range of suggestions that could be made. With regard to cognitive aspects of ergonomics, candidates might suggest use of graphical displays on monitors as well as operating within the limits of workers' short-term memories and not requiring workers to engage in secondary (as well as primary) tasks. Physical aspects of ergonomics could equally well be considered, such as the size, spacing and shape (Feng Shui) of office furniture. Colour, temperature, noise levels and accommodation of workers' territorial needs can also be seen as creditworthy. It is important that the suggestions are related to the context of the question. Other appropriate responses should be credited.	10	APPENDIX 3 GENERIC MARK SCHEME FOR SECTION B PART (c) QUESTIONS *AO2: Apply knowledge and understanding of scientific ideas, processes, techniques and procedures (10 marks)* Level 4 (9 – 10 Marks) Generic Mark Scheme (part c) Response demonstrates a good application of psychological knowledge and understanding to the question. Application will be explicit, accurate, and relevant to the question. There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated. Guidance Answers in this band go beyond what might be expected of a standard, accurate response. Candidates can take either a 'depth' or 'breadth' approach (i.e. the advice may centre on one suggestion or more than one suggestion). Either way, what is being suggested will be made specific to the scenario in the question (with precise details of how it will operate) and the psychological rationale to support what is being suggested will be made explicit. Level 3 (6 – 8 Marks) Generic Mark Scheme (part c) Response demonstrates a reasonable application of psychological knowledge and understanding to the question. Application will be clear and focused on the question. There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence. Guidance A standard, accurate response will sit in the middle of this band (i.e. be awarded 7 marks).

STEMUP.CO.UK

Question	Answer/Indicative content	Marks	Guidance
			Candidates can take either a 'depth' or 'breadth' approach (i.e. the advice may centre on one suggestion or more than one suggestion). Either way, what is being suggested will be made specific to the scenario in the question. There is psychological rationale to support what is being suggested (although this may not be made explicit by the candidate). Level 2 (3 – 5 Marks) Generic Mark Scheme (part c) Response demonstrates a limited application of psychological knowledge and understanding to the question. Application may relate to the general topic area rather than the specific question. The information has some relevance and is presented with limited structure. The information is supported by limited evidence. Guidance Answers in this band will lack precision. Candidates can take either a 'depth' or 'breadth' approach (i.e. the advice may centre on one suggestion or more than one suggestion). Either way, what is being suggested will remain at the general level. It will not be made specific to the scenario in the question. There will be a lack of psychological rationale for what is being suggested. Level 1 (1 – 2 Marks) Generic Mark Scheme (part c) Response demonstrates a basic application of psychological knowledge and understanding to the question. Knowledge will be only partially relevant to the question: Responses will be generalised; lacking focus on the question. The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear. Guidance Answers in this band contain some

STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
					creditworthy material but it is not used effectively. Level 0 Generic Mark Scheme (part c) No creditworthy response. Guidance Answers in this band contain no creditworthy material. <u>Examiner's Comments</u> Candidates were able to make a range of suggestions. Some candidates gave strategies without psychological rationale and so their marks were limited. Others did not specify how their strategy could be delivered. For example, candidates promoted clearing their desks and office space without explaining how this relates to the question, or the better use of visual displays on monitors without specifying what this would look like.

STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
	c		Explain how the key research by Drews and Doig (2014) could be used to help nurses working in hospitals. AO1 (5 marks) Candidates must refer to the key study by Drews and Doig. Candidates will demonstrate knowledge and understanding of this key study through describing the psychological evidence of the key study appropriately and effectively. AO2 (5 marks) Candidates should *apply* their knowledge and understanding of the study by Drews and Doig to make suggestions about how the research could be used to help nurses working in hospitals. Answers can be expected to focus on the use of graphical displays on Configural Vital Signs (CVS) monitors. This involved numerical data being supplemented with both trend data and also a current state object that changed in colour, shape and position to indicate the patient's current heart rate, blood pressure and blood oxygen saturation relative to their variability over the previous hour (represented through a solid white rectangle) and normal thresholds (represented through an outline grey rectangle). It could be suggested that the introduction of such displays in Intensive Care Units would help nurses to assess patients with both greater accuracy and speed (and with lower levels of mental demand), as was found in the key research. Less detailed answers or answers that simply describe the study without making suggestions about how it could be used to help nurses working in hospitals will only gain marks in the lower bands.	10	APPENDIX 1 Generic mark scheme for Section B PART (a) QUESTIONS *AO1: Demonstrate knowledge and understanding of scientific ideas, processes, techniques and procedures (5 marks)* *AO2: Apply knowledge and understanding of scientific ideas, processes, techniques and procedures (5 marks)* Level 4 (9–10 Marks) Generic Mark Scheme (part a) Response demonstrates good relevant knowledge and understanding. Accurate and reasonably detailed description. There is appropriate selection of material to address the question. Response demonstrates a good application of psychological knowledge and understanding to the question. Application will be explicit, accurate, and relevant to the question. There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated. Guidance Answers in this band go beyond what might be expected of a standard, accurate response. For example, the answer may contain detailed knowledge of the study (e.g. a number of accurate fine details) and/or detailed understanding of how to apply it (e.g. making a number of different, relevant application points, rather than just one application point). Alternatively, answers may 'go beyond' by bringing in additional supporting research (i.e. use more than just the key study to address the question) where the wording of the question permits this. Level 3 (6–8 Marks) Generic Mark Scheme (part a) Response demonstrates reasonable relevant knowledge and understanding. Generally accurate description lacking some detail. There is some evidence of selection of material to address the question.

STEMUP.CO.UK

Question	Answer/Indicative content	Marks	Guidance
			Response demonstrates a reasonable application of psychological knowledge and understanding to the question. Application will be clear and focused on the question. There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence. Guidance A standard response will sit in the middle of this band (i.e. be awarded 7 marks). The answer is essentially accurate. There is adequate description of the key study and it is applied in the way that the question requires. Broadly speaking, the candidate is correct in what they are saying. However, their answer lacks the extension (detailed knowledge of the study and/or detailed understanding of how to apply it) that typifies answers in the top band. Level 2 (3–5 Marks) Generic Mark Scheme (part a) Response demonstrates limited relevant knowledge and understanding. Limited description lacking in detail. There is some evidence of selection of material to address the question. Response demonstrates a limited application of psychological knowledge and understanding to the question. Application may be related to the general topic area rather than the specific question. The information has some relevance and is presented with limited structure. The information is supported by limited evidence. Guidance Answers can be limited for a number of reasons. For example, description of the study may lack the detail (or accuracy) that can be expected of a good, standard response; the key study may be described but not actually applied in the way that the question requires; the examiner may not be convinced of the candidate's understanding.

STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
					Level 1 (1–2 Marks) Generic Mark Scheme (part a) Response demonstrates basic knowledge and understanding. Description is basic. There is little evidence of selection of material to address the question. Response demonstrates a basic application of psychological knowledge and understanding to the question. Knowledge will be only partially relevant to the question: responses will be generalised; lacking focus on the question. The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear. Guidance Answers in this band contain some creditworthy material but essentially are wrong/flawed in what is being said. Level 0 Generic Mark Scheme (part a) No creditworthy response. Guidance Answers in this band contain no creditworthy material. <u>Examiner's Comments</u> Better candidates made explicit links to how the study would help nurses in terms of accuracy and speed of reading vital information on displays. Broadly speaking, knowledge and understanding of the study was good, but not always as detailed as other part (a)s.
			Total	35	

Question			Answer/Indicative content	Marks	Guidance
7	a		Explain how the key research by Ulrich (1984) could be used to influence the design of hospitals. AO1 (5 marks) Candidates must refer to the key study by Ulrich to access the top band. Candidates will demonstrate knowledge and understanding of this key study through describing the psychological evidence of the key study appropriately and effectively. AO2 (5 marks) Candidates should apply their knowledge and understanding of the study by Ulrich to make suggestions about the design of hospitals. Answers can be expected to focus on the views from windows, with views of natural scenes (trees) being favoured over views of walls. The best candidates will go further, suggesting that patients recovering from the most serious conditions be prioritised when allocating tree views, beds within wards be positioned close to windows with tree views, hospitals be designed to have as many rooms as possible with outward-looking views over trees, etc. Less detailed answers or answers that simply describe the study without making suggestions about how it could be used to influence the design of hospitals will only gain marks in the lower bands.	10	Appendix 1 *AO1: Demonstrate knowledge and understanding of scientific ideas, processes, techniques and procedures (5 marks)* *AO2: Apply knowledge and understanding of scientific ideas, processes, techniques and procedures (5 marks)* Level 4 (9–10 marks) Response demonstrates good relevant knowledge and understanding. Accurate and reasonably detailed description. There is appropriate selection of material to address the question. Response demonstrates a good application of psychological knowledge and understanding to the question. Application will be explicit, accurate, and relevant to the question. There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated. Level 3 (6–8 marks) Response demonstrates reasonable relevant knowledge and understanding. Generally accurate description lacking some detail. There is some evidence of selection of material to address the question. Response demonstrates a reasonable application of psychological knowledge and understanding to the question. Application will be clear and focused on the question. There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence. Level 2 (3–5 marks) Response demonstrates limited relevant knowledge and understanding. Limited description lacking in detail. There is some evidence of selection of material to

STEMUP.CO.UK

Question	Answer/Indicative content	Marks	Guidance
			address the question. Response demonstrates a limited application of psychological knowledge and understanding to the question. Application may be related to the general topic area rather than the specific question. The information has some relevance and is presented with limited structure. The information is supported by limited evidence. Level 1 (1–2 marks) Response demonstrates basic knowledge and understanding. Description is basic. There is little evidence of selection of material to address the question. Response demonstrates a basic application of psychological knowledge and understanding to the question. Knowledge will be only partially relevant to the question: responses will be generalised; lacking focus on the question. The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear. Level 0 (0 marks) No creditworthy response. Examiner's Comments This question was generally well answered in terms of description of the study and its findings. Better candidates gave a full account of the procedure and controls used to assess the effect on patients' recovery. The question asked about hospital design and the study suggests patients recover better with a window with a tree view while recovering. The suggestion to incorporate this into any hospital design should be straight forward, and was for many. On the other hand, numerous variations from foliage to woodland scenes and more were provided, including building the hospital in green spaces patients could walk in. This wouldn't work for the bed-bound (eg Post-

STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
					surgery) patients.
	b		**Discuss the validity of research into psychological effects of the built environment.** **AO1 (2 marks)** Candidates should demonstrate knowledge and understanding of the validity of research. **AO3 (13 marks)** Candidates should analyse, interpret and evaluate the validity of research into the psychological effects of the built environment. As well as referring to the key research, candidates can refer to research investigating the impact of the built environment and urban renewal on our wellbeing. Any relevant research is creditworthy. Candidates may discuss the following: the difficulty of isolating a particular variable (e.g. nature view; noise; density) to be able to say that it is this that is having an effect; the extent to which data collected though self-report means might be vulnerable to demand characteristics or social desirability bias; the extent to which findings from a particular sample can be generalised from (i.e. population validity); whether findings have had predictive validity in relation to the success of future buildings projects; the ecological validity of field-based research may be praised at the same time as difficulties in imposing controls on it may be recognised. Points about validity need to be discussed, rather than simply identified and illustrated. Other appropriate responses should be credited.	15	**Appendix 2** *AO1: Demonstrate knowledge and understanding of scientific ideas, processes, techniques and procedures (2 marks)* *AO3: Analyse, interpret and evaluate scientific information, ideas and evidence (13 marks)* **Level 4 (12–15 marks)** Response demonstrates good relevant knowledge and understanding. Response demonstrates many points of analysis, interpretation and evaluation covering a range of issues. The argument is competently organised, balanced and well developed. The answer is explicitly related to the context of the question. Effective use of examples where appropriate. Valid conclusions that effectively summarise issues and argument is highly skilled and shows good understanding. There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated. **Level 3 (8–11 marks)** Response demonstrates good relevant knowledge and understanding. Response demonstrates a reasonable number of points of analysis, interpretation and evaluation covering a range of issues. The argument is well organised, but may lack balance or development, and is related to the context of the question. Reasonable use of examples where appropriate. Valid conclusions that effectively summarise issues and arguments are competent and understanding is reasonable. There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence. **Level 2 (4–7 marks)** Response demonstrates reasonable

STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
					knowledge and understanding. Response demonstrates a limited number of points of analysis, interpretation and evaluation which are limited in range. Argument and organisation is limited, and some points are related to the context of the question. Some valid conclusions that summarise issues and arguments. Demonstrates some understanding. The information has some relevance and is presented with limited structure. The information is supported by limited evidence. Level 1 (1–3 marks) Response demonstrates reasonable knowledge and understanding. Response demonstrates a few basic points of analysis, interpretation and evaluation. No evidence of argument. Points are not organised, and are of peripheral relevance to the context of the question. Sparse or no use of supporting examples. Basic or no valid conclusions that attempt to summarise issues and arguments show little understanding. The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear. Level 0 (0 marks) No creditworthy response. <u>Examiner's Comments</u> Candidates had a generally good understanding of validity – responses considered internal validity (eg standardisation as a positive: nurse blind to conditions extracting data from notes, data collected retrospectively so not affected by subject reactivity), population validity (negative = only one type of surgery, only in Pennsylvania where health care may not be representative of the USA). The most common type was ecological validity, most candidates commenting that the study was conducted in a real life setting (real hospital, real patients).

STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
	c		What might a psychologist suggest about how Jon can achieve his aim? AO2 (10 marks) Candidates need to apply their knowledge and understanding of environmental design used to improve health / wellbeing. There are a wide range of suggestions that could be made including incorporation of green spaces, low density housing, noise reduction, defensible space, cul-de-sacs, cycle lanes, local facilities (to avoid unnecessary travel), etc. It is important that the suggestions are related to the context of the question. Other appropriate responses should be credited.	10	Appendix 3 *AO2: Apply knowledge and understanding of scientific ideas, processes, techniques and procedures (10 marks)* Level 4 (9–10 marks) Response demonstrates a good application of psychological knowledge and understanding to the question. Application will be explicit, accurate, and relevant to the question. There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated. Level 3 (6–8 marks) Response demonstrates a reasonable application of psychological knowledge and understanding to the question. Application will be clear and focused on the question. There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence. Level 2 (3–5 marks) Response demonstrates a limited application of psychological knowledge and understanding to the question. Application may relate to the general topic area rather than the specific question. The information has some relevance and is presented with limited structure. The information is supported by limited evidence. Level 1 (1–2 marks) Response demonstrates a basic application of psychological knowledge and understanding to the question. Knowledge will be only partially relevant to the question: Responses will be generalised; lacking focus on the question. The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear.

STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
					Level 0 (0 marks) No creditworthy response. <u>Examiner's Comments</u> This question attracted some imaginative responses, with candidates drawing on material from across the environment topics to suggest how Jon could design the new part of town. Candidates typically would make a wide range of suggestions within their answers, referring to green spaces, defensible space, noise and distance from airports, cul-de-sacs, the height of buildings, etc.). Better responses included evidence from the key research or other psychology literature to support their answer.
			Total	35	

Question			Answer/Indicative content	Marks	Guidance
8	a		Explain how the research by Lord (1994) could be used to improve levels of recycling. AO1 Candidates must refer to the key study by Lord to access the top band. Candidates will demonstrate knowledge and understanding of this key study through describing the psychological evidence of the key study appropriately and effectively. AO2 Candidates should *apply* their knowledge and understanding of the study by Lord to explain how levels of recycling could be improved. Answers are likely to separate out message approach (positively framed versus negatively framed) from message source (advertisement, newspaper article, personal letter). With regard to findings, "Although positive appeals yielded most favourable levels of beliefs and attitude toward recycling, the greatest increase in recycling behaviour came in response to a negatively framed message conveyed by a personal acquaintance" (Lord, p341). The best answers will make a distinction between attitudes, beliefs and behaviour. It is important for the answer to make the link between the key research and suggestions for how to improve levels of recycling. Less detailed answers or answers that simply describe the study without making suggestions about how it could be used to improve levels of recycling will only gain marks in the lower bands.	10	APPENDIX 1 *AO1: Demonstrate knowledge and understanding of scientific ideas, processes, techniques and procedures (5 marks)* *AO2: Apply knowledge and understanding of scientific ideas, processes, techniques and procedures (5 marks)* Level 4 (9–10 Marks) Response demonstrates good relevant knowledge and understanding. Accurate and reasonably detailed description. There is appropriate selection of material to address the question. Response demonstrates a good application of psychological knowledge and understanding to the question. Application will be explicit, accurate, and relevant to the question. There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated. Level 3 (6–8 Marks) Response demonstrates reasonable relevant knowledge and understanding. Generally accurate description lacking some detail. There is some evidence of selection of material to address the question. Response demonstrates a reasonable application of psychological knowledge and understanding to the question. Application will be clear and focused on the question. There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence. Level 3 (3–5 Marks) Response demonstrates limited relevant knowledge and understanding. Limited description lacking in detail. There is some evidence of selection of material to address the question. Response demonstrates a limited application of psychological knowledge

STEMUP.CO.UK

Question	Answer/Indicative content	Marks	Guidance
			and understanding to the question. Application may be related to the general topic area rather than the specific question. The information has some relevance and is presented with limited structure. The information is supported by limited evidence. Level 2 (1–2 Marks) Response demonstrates basic knowledge and understanding. Description is basic. There is little evidence of selection of material to address the question. Response demonstrates a basic application of psychological knowledge and understanding to the question. Knowledge will be only partially relevant to the question: responses will be generalised; lacking focus on the question. The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear. Level 0 (0 Marks) No creditworthy response. <u>Examiner's Comments</u> Assessment Objective 1 was mostly better displayed than Assessment Objective 2. Candidates had learned the key studies well and then attempted, some better than others, to apply this to the question asked. Child Better responses appreciated the point of the key research by Wood et al. Most could give an outline of what happened, but few answers were detailed or explicitly explained the findings. Fewer still focused on the applications in terms of scaffolding strategies such as demonstration, frustration control, reduction in degrees of freedom, recruitment, etc. The best responses understood that the study informed scaffolding strategies that could be used in the classroom.

STEMUP.CO.UK

Question	Answer/Indicative content	Marks	Guidance
			Crime Most candidates could give an outline of Raine et al.'s murderers' brains study, showing good knowledge of detail. A small number, however, wrote about other biological background studies. This seemed unique to this option. Methodological details of the study were well described (although MRI often cited rather than PET). Results and their implications were not so well described – candidates often suggested high rather than low activity in pre-frontal cortex for example or which side of the amygdala had less activity and which more. Better responses could describe a number of brain differences and explain the implications of these for crime (impulsivity, low IQ, fearlessness etc) Environment Lord's research was well described in general. However, the outcome in terms of attitude and behaviour was less well described. Some candidates mistakenly assumed positive messages gave the highest behaviour change. Better responses noted that all experimental conditions led to significant increase in recycled items but that the best came from negative personal messages. Weaker responses did not go on to address the application element of the question explicitly. Mid-range responses did so but with weak links from study detail to question application (addressing the demand of the question). The best responses did this and made good connections between the study's findings and the way they could be used to increase recycling. Sport Most candidates could describe Zajonc et al.'s studies into cockroaches. Better responses showed understanding of the results in relation to drive theory, and those that made this connection were more likely to make a direct and detailed link to sport in their answer. Easy/difficult (dominant response) tasks were recounted against the presence of audiences, or none.

STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
					Many candidates, however failed mention sport at all or did so only briefly/obliquely. Weaker responses failed to describe the conditions in detail and failed to fully show how audiences affect the performance of the cockroaches in the easy and difficult tasks.
	b		**Discuss the individual-situational explanations debate in relation to recycling and other conservation behaviours.** AO1 Candidates should demonstrate knowledge and understanding of the debate about individual or situational explanations of behaviour. AO3 Candidates should analyse, interpret and evaluate the individual-situational explanations debate in relation to recycling and other conservation behaviours. Support for situational explanations could come from the impact of prompts, feedback, bottle deposit schemes, apparent social norms, etc., while individual explanations could centre on knowledge deficits, attitudes, values, feelings of self-efficacy, etc. Answers can be broadened out from recycling to other conservation behaviours. Individual or situational explanations need to be discussed, rather than simply identified and illustrated. Other appropriate responses should be credited.	15	APPENDIX 2 *AO1: Demonstrate knowledge and understanding of scientific ideas, processes, techniques and procedures (2 marks)* *AO3: Analyse, interpret and evaluate scientific information, ideas and evidence (13 marks)* Level 4 (12–15 Marks) Response demonstrates good relevant knowledge and understanding. Response demonstrates many points of analysis, interpretation and evaluation covering a range of issues. The argument is competently organised, balanced and well developed. The answer is explicitly related to the context of the question. Effective use of examples where appropriate. Valid conclusions that effectively summarise issues and argument is highly skilled and shows good understanding. There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated. Level 3 (8–11 Marks) Response demonstrates good relevant knowledge and understanding. Response demonstrates a reasonable number of points of analysis, interpretation and evaluation covering a range of issues. The argument is well organised, but may lack balance or development, and is related to the context of the question. Reasonable use of examples where appropriate. Valid conclusions that effectively summarise issues and arguments are competent and understanding is reasonable. There is a line of reasoning presented with some structure. The information presented

STEMUP.CO.UK

Question	Answer/Indicative content	Marks	Guidance
			is in the most-part relevant and supported by some evidence. Level 2 (4–7 Marks) Response demonstrates reasonable knowledge and understanding. Response demonstrates a limited number of points of analysis, interpretation and evaluation which are limited in range. Argument and organisation is limited, and some points are related to the context of the question. Some valid conclusions that summarise issues and arguments. Demonstrates some understanding. The information has some relevance and is presented with limited structure. The information is supported by limited evidence. Level 1 (1–3 Marks) Response demonstrates reasonable knowledge and understanding. Response demonstrates a few basic points of analysis, interpretation and evaluation. No evidence of argument. Points are not organised, and are of peripheral relevance to the context of the question. Sparse or no use of supporting examples. Basic or no valid conclusions that attempt to summarise issues and arguments show little understanding. The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear. Level 0 (0 Marks) No creditworthy response. <u>Examiner's Comments</u> Most candidates used a PEE model to present two or three points in their responses. Candidates commonly made evaluative comment with reference to studies, but few elaborated or discussed these assertions, so top band responses were few. Child

STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
					Nature –nurture. Most candidates did a “this one’s nature and that one’s nurture” which naturally linked their evaluation to research. Better responses concluded with an interactionist argument. Piaget’s stages and the age differences in Wood et al. were used well to support a nature argument, as was Vygotsky’s MKO and the role of the tutor to support a nurture argument. Weaker responses tended to mix up their answer as they seemed unclear as to what nature was and what nurture was. Crime Methodological issues. Better responses used the methodological strengths and weaknesses of the key and wider research to answer the question. Middling responses tended to identify problems (for instance, “it’s hard to study criminals using self-report as they cannot be trusted to tell the truth”) without exemplifying or substantiating their points. Typical of weaker responses was to be prepared for reductionism, determinism and freewill and usefulness for this topic area and were going to write about these and call them methodological issues, which rarely bore fruit. Environment Individual-situational. As with nature-nurture most candidates did a “this is situational because and this is individual because” type answer. Better responses supported one or other argument with relevant evidence (usually using Lord to support a situational argument). Some used individual-situation interchangeably with nature-nurture, which didn't always work particularly well. The dark green - light green distinction worked far better. Sport Validity. Most answers were able to identify different types of validity (population validity and internal validity) and link these to the key research. For ecological validity, home advantage and the Michael's study of pool players in a university bar were used.

STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
	c		What suggestions might a psychologist make to Trevor about techniques for increasing recycling or other conservation behaviours among the children in the school? AO2 Candidates need to apply their knowledge and understanding of techniques used to increase recycling or other conservation behaviour. Suggestions could take a range of forms (e.g. antecedent or consequent; behavioural or cognitive) and can embrace a range of different conservation behaviours (e.g. turning down the heating; walking or cycling to school; turning off taps). However, the focus must be on increasing conservation behaviours (i.e. not just improving attitudes) and they must be relevant to the school setting and the primary school age group. Suggestions involving advertisements, newspaper articles or even letters from people they know are unlikely to be appropriate for those in the lower years. It is important that the suggestions are related to the context of the question. Other appropriate responses should be credited.	10	APPENDIX 3 *AO2: Apply knowledge and understanding of scientific ideas, processes, techniques and procedures (10 marks)* Level 4 (9–10 Marks) Response demonstrates a good application of psychological knowledge and understanding to the question. Application will be explicit, accurate, and relevant to the question. There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated. Level 3 (6–8 Marks) Response demonstrates a reasonable application of psychological knowledge and understanding to the question. Application will be clear and focused on the question. There is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence. Level 2 (3–5 Marks) Response demonstrates a limited application of psychological knowledge and understanding to the question. Application may relate to the general topic area rather than the specific question. The information has some relevance and is presented with limited structure. The information is supported by limited evidence. Level 1 (1–2 Marks) Response demonstrates a basic application of psychological knowledge and understanding to the question. Knowledge will be only partially relevant to the question: Responses will be generalised; lacking focus on the question. The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear.

STEMUP.CO.UK

Question	Answer/Indicative content	Marks	Guidance
			Level 0 (0 Marks) No creditworthy response. <u>Examiner's Comments</u> This was generally the best answered part of the options. This was encouraging as it was the biggest departure from the legacy specification. Candidates have embraced the idea of making practical, real-life suggestions, with better ones clearly drawing their ideas from a sound base of psychological knowledge. Child Revising in silence allowed Grant's context –dependent memory study to be included as a suggestion, which helped the candidates to support their responses with empirical evidence. Recommended books tend to list strategies without detailed supporting studies, so candidates tended to suggest mnemonics, acronyms, mind maps etc. The appropriateness of the examples of application for 15-16 year olds exam revision varied somewhat. Crime Better responses made use of nutrition/combined programmes of nutrition exercise and cognitive skills using the studies from Olds/Raine to support their suggestions. Lots of fish oil and Omega-3 was suggested. Candidates who had not studied these as their chosen strategies often turned to less ethical applications, including castration and sterilisation of potential criminals. Plastic surgery was referenced with candidates often struggling to make this a legitimate suggestion. Not smoking or drinking alcohol whilst pregnant was a better presented suggestion; less good were those that weren't biological, lacked feasibility or, for ethical reasons, would not be suggested. Environment As the client group was primary school children a lot of strategies were suggested using reinforcement and role modelling, using core studies as supporting evidence, which again was perfectly legitimate and credit worthy. Candidates made good suggestions including imaginative application of

STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
					operant conditioning or Social Learning Theory; the best responses were thoroughly contextualised, referring to assemblies, sticker charts, etc., as well as examples of antecedent and consequent strategies. Sport Many candidates figured that the given scenario was going to require that Lizzie managed her arousal for playing in front of a crowd, and a variety of methods were suggested including breathing exercises, biofeedback, practising so that skills become dominant tasks (so would be enhanced by crowd), practising in front of a crowd, using rituals/music to control her arousal. Others suggested imagery. Some candidates struggled to offer convincing support for the suggestions they had made.
			Total	35	