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**PSYCHOLOGY**

**9698/31**

Paper 3 Specialist Choices

**October/November 2018**

MARK SCHEME

Maximum Mark: 80

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**Published**

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

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

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

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This document consists of **28** printed pages.

**Generic Marking Principles**

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

**GENERIC MARKING PRINCIPLE 1:**

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

**GENERIC MARKING PRINCIPLE 2:**

Marks awarded are always **whole marks** (not half marks, or other fractions).

**GENERIC MARKING PRINCIPLE 3:**

Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

**GENERIC MARKING PRINCIPLE 4:**

Rules must be applied consistently e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

**GENERIC MARKING PRINCIPLE 5:**

Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).

**GENERIC MARKING PRINCIPLE 6:**

Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

Each option has three questions:

**Section A: A short answer question: (a) = 2 marks, (b) = 4 marks**

**Section B: An essay question: (a) = 8 marks, (b) = 12 marks**

**Section C: An applications question (a) = 6 marks, (b) = 8 marks [choice of questions]**

*In order to achieve the same standard across all options, the same mark schemes are used for each option. These mark schemes are as follows.*

<b>Section A: Short answer question: (a) = 2 marks</b>	
No answer or incorrect answer.	0
Basic or muddled explanation. Some understanding but brief and lacks clarity.	1
Clear and accurate and explicit explanation of term.	2

<b>Section A: Short answer question: (b) = 4 marks</b>	
No answer or incorrect answer.	0
Anecdotal answer with little understanding of question area and no specific reference to study.	1
Basic answer with some understanding. Reference to named study/area only. Minimal detail.	2
Good answer with good understanding. Study/area included with good description.	3
Very good answer with clear understanding of study/area with detailed and accurate description.	4

<b>Section C: Application question = 6 marks</b>	
No answer or incorrect answer.	0
Vague attempt to relate anecdotal evidence to question. Understanding limited.	1–2
Brief description of range of appropriate evidence with some understanding.	3–4
Appropriate description of good range of appropriate evidence with clear understanding.	5–6

<b>Section C: Application question = 8 marks</b>	
<b>Suggestion</b> is wrong.	0
<b>Suggestion</b> is largely appropriate to the question and is vaguely based on psychological knowledge. Answer is mainly inaccurate, often incoherent and lacks detail. Understanding is lacking. If applicable, methodological knowledge is basic or absent. <ul style="list-style-type: none"> <li>For methodology question <i>description</i> of a study/other authors' work 2 marks max if related to question.</li> <li>Different method from that named, but related to question max 2 marks.</li> <li>Method correct, but not answering question max 2 marks.</li> </ul>	1–2

<b>Section C: Application question = 8 marks</b>	
<p><b>Suggestion</b> is appropriate to the question and based on psychological knowledge. Answer has some accuracy, some coherent and some detail. Understanding is limited. If applicable, methodological knowledge is adequate.</p> <ul style="list-style-type: none"> <li>Range of different methods, including named method, but lacks coherence.</li> </ul>	3–4
<p><b>Suggestion</b> is appropriate to the question and is based on psychological knowledge. Answer is accurate, largely coherent and detailed. Understanding is good. If applicable, methodological knowledge is good. NB main/named method plus method to gather data is coherent.</p>	5–6
<p><b>Suggestion</b> is appropriate to the question and is clearly based on psychological knowledge. Answer is accurate, is coherent and has appropriate detail. Terminology is used appropriately. Understanding is very good. Methodological knowledge is very good with 5 or more co-ordinated features.</p>	7–8

**GENERIC: General:** In this question part each candidate is free to **suggest** a way in which the assessment request could be investigated; the ‘you’ is emphasised to show that in this question it is not *description* that is being assessed, but an individual *suggestion*.

- The question may be in the form of a suggestion for research, or an application.
- The question may allow a candidate a free choice of method to design their own study.
- It might be that a specific method is named in the question, and if it is this method *must be addressed*.
- Each answer should be considered individually as it applies to the mark scheme.
- Marks are awarded for methodological knowledge and how the methodology is applied to this topic area.

**EXAMPLE: Specific:** The named method is a **field experiment**, so inclusion where the experiment is to be conducted, IV and DV, controls, and design, task to be completed and sample for example, are essential features. NB not all these features are needed for a max mark.

Experiments	Observations	Q’nnaire/Interview	General features
Type: lab or field	Participants: overt or covert	Type: open/closed	Sampling technique/sample
IV and DV	Observers: participant or non-participant	Setting: where conducted/how	Type of data Quantitative or Qualitative
Design	Data: structured or unstructured	Questions	Data analysis: descriptive or inf
Controls	Setting: controlled or uncontrolled	Rating scale e.g. type, 5-point	Ethics Reliability Validity
Allocate to conditions	Number observers/irr	Scoring	

<b>Section B: Essay question: (a) = 8 marks</b>	
No answer or incorrect answer.	0
Definition of terms and use of psychological terminology is sparse or absent. Description is mainly inaccurate, lacks coherence and lacks detail. Understanding is poor. The answer is unstructured and lacks organisation.	1–2
Definition of terms is basic and use of psychological terminology is adequate. Description is often accurate, generally coherent but lacks detail. Understanding is reasonable. The answer is lacking structure or organisation.	3–4
Definition of terms is mainly accurate and use of psychological terminology is competent. Description is mainly accurate, coherent and reasonably detailed. Understanding is good. The answer has some structure and organisation.	5–6
Definition of terms is accurate and use of psychological terminology is comprehensive. Description is accurate, coherent and detailed. Understanding is very good. The answer is competently structured and organised.	7–8

<b>Section B: Essay question: (b) = 12 marks</b>	
No answer or incorrect answer.	0
Evaluation (positive and negative points) is <b>basic</b> . Range of evaluative points, <u>which may or may not include the named issue</u> , is sparse and may be only positive or negative. Evaluative points are not organised into issues/debates, methods or approaches. Sparse or no use of appropriate supporting examples which are peripherally related to the question. Analysis (key points and valid generalisations) is very limited or not present. Evaluation is severely lacking in detail and understanding is weak.	1–3
Evaluation (positive and negative points) is <b>limited</b> . Range of evaluative points, <u>which may or may not include the named issue</u> , is limited. Points hint at issues/debates, methods or approaches but with little or no organisation into issues. Poor use of supporting examples. Analysis (key points and valid generalisations) is sparse. Evaluation is lacking in detail and understanding is sparse. NB If evaluation is 'by study' with same issues identified repeatedly with no positive or negative points of issues, however good examples are, maximum 6 marks. NB If the issue stated in the question is <b>not</b> addressed, maximum 6 marks. NB If <b>only</b> the issue stated in the question is addressed, maximum 4 marks.	4–6
Evaluation (positive and negative points) is <b>good</b> . Range of evaluative issues/debates, methods or approaches, <u>including the named issue</u> , is good and is balanced. The answer has some organisation of evaluative issues (rather than 'study by study'). Good use of appropriate supporting examples which are related to the question. Analysis (key points and valid generalisations) is often evident. Evaluation has good detail and understanding is good.	7–9

**Section B: Essay question: (b) = 12 marks**

Evaluation (positive and negative points) is <b>comprehensive</b> . Selection and range of evaluative issues/debates, methods or approaches, <u>including the named issue</u> , is very good and which are competently organised. Effective use of appropriate supporting examples which are explicitly related to the question. Analysis (valid conclusions that effectively summarise issues and arguments) is evident throughout. Evaluation is detailed and understanding is thorough.	10- 12
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## PSYCHOLOGY AND EDUCATION

Question	Answer	Marks
<b>Section A: Short answer question: (a) = 2 marks</b>		
1(a)	<p><b>Explain, in your own words, what is meant by ‘special educational needs’.</b></p> <p><b>Typically:</b> A special educational need is where a child has needs which are different to the norm, either because they are gifted or they have a difficulty or disability. This means the child may need different strategies or facilities which are different and are suited to the need.</p> <p><b>Marks:</b> 1 mark basic and 2 marks elaboration.</p>	<b>2</b>
<b>Section A: Short answer question: (b) = 4 marks</b>		
1(b)	<p><b>Describe <u>two</u> special educational needs.</b></p> <p><b>Syllabus:</b></p> <ul style="list-style-type: none"> <li>• <b>definitions, types and assessment of special educational needs</b> (including gifted children) definitions of special educational need and giftedness; types of special educational need (e.g. dyslexia; attention deficit hyperactive disorder ADHD), autistic spectrum disorders and giftedness (e.g. Bridges, 1969).</li> </ul> <p><b>Most likely:</b></p> <ul style="list-style-type: none"> <li>• <b>giftedness</b> (elaboration could be one or more types)</li> <li>• <b>difficulty or disability</b> (elaboration could be dyslexia, dyscalculia, etc.; Attention deficit hyperactive disorder; autistic spectrum disorder. Although no longer on the syllabus disabilities such as partial sightedness to receive credit.</li> </ul> <p><b>Marks:</b> 1 mark identification and 1 mark for each description/elaboration ×2</p>	<b>4</b>

Question	Answer	Marks
<b>Section B: Essay question: (a) = 8 marks</b>		
2(a)	<p><b>Describe what psychologists have found out about learning and teaching styles.</b></p> <p>Candidates are likely to include some of the following details from the syllabus:</p> <ul style="list-style-type: none"> <li>• <b>learning styles and teaching styles:</b> The onion model (Curry, 1983); Grasha's (1996) six styles of learning. Teaching styles: formal and informal styles (Bennett, 1976); High-initiative and low-initiative (Fontana, 1995)</li> <li>• <b>measuring learning styles and teaching styles</b> Learning: Approaches to study Inventory (ASI) (Entwistle, 1981). Teaching: teacher-centred and student-centred styles (Kyriacou and Williams, 1993); Kolb's (1976) learning styles.</li> <li>• <b>improving learning effectiveness (study skills)</b> the 4-mat system (McCarthy, 1990); PQRST method: learning from textbooks; Strategies for effective learning and thinking (SPELT) Mulcahy et al. (1986).</li> </ul>	<b>8</b>
<b>Section B: Essay question: (b) = 12 marks</b>		
2(b)	<p><b>Evaluate what psychologists have found out about learning and teaching styles, including a discussion about the methods used to gather data.</b></p> <p><i>NOTE: any evaluative point can receive credit; the hints are for guidance only.</i></p> <p><u>Evaluation of theory:</u> internal strengths and weaknesses; theoretical issues: reductionism, determinism, ethnocentrism. Supporting/contradicting evidence; Comparisons and contrasts with alternative theory.</p> <p><u>Evaluation of research:</u> strengths and weaknesses of methods, sample, controls, procedure. Evaluation of and comparisons and/or contrasts with alternative methodologies.</p> <p><u>Evaluation of issues and debates:</u> <i>Any relevant debate can be raised, such as qualitative versus quantitative data, snapshot versus longitudinal studies, extent of ecological validity, nature versus nurture; freedom versus determinism; reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness, application to real life.</i></p> <p><u>Named issue: different methodologies:</u> Candidates should compare and/or contrast the different methodologies used to investigate teaching/ learning styles. Reference to the second bullet point above reveals the most likely studies to be included, each of which has many advantages and disadvantages.</p>	<b>12</b>



Question	Answer	Marks
<b>Section C: Application question (a) = 8 marks</b>		
3	<b>One behaviourist application is programmed learning, but this may not be the most effective way in which to learn.</b>	
3(a)	<p><b>Suggest how <u>you</u> would design and conduct an experiment to determine whether programmed learning is an effective technique.</b></p> <p><b>General:</b> In this question part each candidate is free to suggest a way in which the assessment request could be investigated; the ‘you’ is emphasised to show that in this question it is not <i>description</i> that is being assessed, but an individual <i>suggestion</i>. The question may be in the form of a suggestion for research, or an application. The question may allow a candidate a free choice of method to design their own study. It might be that a specific method is named in the question, and if it is this method must be addressed. Each answer should be considered individually as it applies to the mark scheme. Marks are awarded for methodological knowledge and how the methodology is applied to this topic area.</p> <p><b>Specific:</b> The named method is an <b>experiment</b>, so inclusion of type of experiment, IV and DV, controls, and design, task to be completed and sample for example are essential features. <b>NB</b> not all these features are needed for a max mark.</p>	<b>8</b>
<b>Section C: Application question (b) = 6 marks</b>		
3(b)	<p><b>Describe how behaviourists explain how children learn.</b></p> <p><b>Syllabus:</b></p> <ul style="list-style-type: none"> <li>• behaviourist applications to learning underlying theory (classical and operant conditioning); applications such as programmed learning and behaviour modification techniques (controlling disruptive behaviour)</li> </ul> <p><b>Most likely:</b> Candidates may describe the basics of operant conditioning, perhaps the work of Skinner. They might include positive reinforcement and punishment and negative reinforcement and punishment. Classical conditioning is inappropriate though credit can be given if the point is justified.</p>	<b>6</b>

Question	Answer	Marks
<b>Section C: Application question (a) = 8 marks</b>		
4	<b>You have devised a new intelligence test.</b>	
4(a)	<p><b>Suggest how <u>you</u> would test the reliability and validity of your intelligence test.</b></p> <p><b>General:</b> In this question part each candidate is free to suggest a way in which the assessment request could be investigated; the ‘you’ is emphasised to show that in this question it is not <i>description</i> that is being assessed, but an individual <i>suggestion</i>. The question may be in the form of a suggestion for research, or an application. The question may allow a candidate a free choice of method to design their own study. It might be that a specific method is named in the question, and if it is this method must be addressed. Each answer should be considered individually as it applies to the mark scheme. Marks are awarded for methodological knowledge and how the methodology is applied to this topic area.</p> <p><b>Specific:</b></p> <ul style="list-style-type: none"> <li>• <b>Reliability</b> concerns the consistency of a test. A good test should give the same (or very similar) score when applied on different occasions. Reliability is usually determined using test-retest, where the same test is given say three weeks after the original test. Also appropriate is split-half, where two halves of the test should result in equal half marks.</li> <li>• <b>Validity</b> is whether the test measures what it claims. There are different types of validity, for example, concurrent validity is how well the results of a test match with those of a different form of the same test that already exists.</li> </ul> <p><b>Marks:</b> 4 marks for validity and 4 marks for reliability</p>	<b>8</b>
<b>Section C: Application question (b) = 6 marks</b>		
4(b)	<p><b>Describe types of intelligence test.</b></p> <p><b>Syllabus:</b></p> <ul style="list-style-type: none"> <li>• <b>concept, types and tests of intelligence</b> concept of intelligence and IQ; types of intelligence tests Stanford-Binet; Wechsler (WAIS and WISC; BAS). Reliability, validity and predictive validity. Intelligence and educational performance.</li> </ul> <p><b>Most likely:</b></p> <ul style="list-style-type: none"> <li>• Candidates could write about IQ tests, such as those by Wechsler (e.g. WAIS and WISC).</li> <li>• Alternatively breaking tests down into ‘verbal’ and ‘performance’ is also acceptable.</li> <li>• Candidates could look at different tests such as the British Ability Scale.</li> <li>• Also acceptable are tests for emotional intelligence, for example.</li> </ul> <p><b>Marks:</b> 3 marks for each type. 1 mark for identification and up to 2 marks for elaboration including use of examples.</p>	<b>6</b>

## PSYCHOLOGY AND HEALTH

Question	Answer	Marks
<b>Section A: Short answer question: (a) = 2 marks</b>		
5(a)	<p><b>Explain, in your own words, what is meant by 'disclosure of information' to a health practitioner.</b></p> <p><b>Typically:</b> the amount of information a patient gives to a health practitioner during a consultation. Some patients will tell the truth, others not and some will provide partial information and hide symptoms.</p> <p><b>Marks:</b> 1 mark for basic statement and 1 mark for elaboration.</p>	<b>2</b>
<b>Section A: Short answer question: (b) = 4 marks</b>		
5(b)	<p><b>Describe <u>one</u> study which has investigated the disclosure of patient information to a health practitioner.</b></p> <p><b>Syllabus:</b></p> <ul style="list-style-type: none"> <li>• <b>patient and practitioner diagnosis and style Practitioner style:</b> doctor and patient centred (Byrne and Long, 1976; Savage and Armstrong, 1990). Practitioner diagnosis: type I and type II errors. Disclosure of information (e.g. Robinson and West, 1992)</li> </ul> <p><b>Most likely:</b></p> <ul style="list-style-type: none"> <li>• Robinson and West (1992) studied people attending a centre for sexually transmitted diseases and found more information about symptoms and undesirable behaviours were given to a computer (e.g. the number of sexual partners) than a face-to-face consultation with a doctor.</li> </ul> <p><b>Marks:</b> 1 mark for identification of study and 3 further marks for description of study with elaboration.</p>	<b>4</b>

Question	Answer	Marks
<b>Section B: Essay question: (a) = 8 marks</b>		
6(a)	<p><b>Describe what psychologists have learned about health and safety.</b></p> <p>Candidates are likely to include some of the following details from the syllabus:</p> <ul style="list-style-type: none"> <li>• <b>definitions, causes and examples:</b> Definitions of accidents; causes: theory A and theory B (Reason, 2000); examples of individual and system errors (e.g. Three mile island, 1979; Chernobyl, 1986).</li> <li>• <b>accident proneness and personality:</b> Accident prone personality; personality factors e.g. age, personality type Human error (e.g. Riggio, 1990), illusion of invulnerability (e.g. The Titanic), cognitive overload (e.g. Barber, 1988).</li> <li>• <b>reducing accidents and promoting safety behaviours:</b> reducing accidents at work: token economy (e.g. Fox et al., 1987); reorganising shift work; safety promotion campaigns (e.g. Cowpe, 1989).</li> </ul>	<b>8</b>
<b>Section B: Essay question: (b) = 12 marks</b>		
6(b)	<p><b>Evaluate what psychologists have learned about health and safety, including a discussion about different ways in which safety behaviour can be promoted.</b></p> <p><i>NOTE: any evaluative point can receive credit; the hints are for guidance only.</i></p> <p><u>Evaluation of theory:</u> internal strengths and weaknesses; theoretical issues: reductionism, determinism, ethnocentrism. Supporting/contradicting evidence; Comparisons and contrasts with alternative theory.</p> <p><u>Evaluation of research:</u> strengths and weaknesses of methods, sample, controls, procedure. Evaluation of and comparisons and/or contrasts with alternative methodologies.</p> <p><u>Evaluation of issues and debates:</u> <i>Any relevant debate can be raised</i>, such as qualitative versus quantitative data, snapshot versus longitudinal studies, extent of ecological validity, nature versus nurture; freedom versus determinism; reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness, application to real life.</p> <p><u>Named issue:</u> <b>different promotion strategies:</b> candidates should compare and/or contrast ways in which safety behaviours can be promoted. Most likely strategies include: token economy (e.g. Fox et al., 1987) and safety promotion campaigns (e.g. Cowpe, 1989) but candidates might also mention reorganising shiftwork patterns.</p>	<b>12</b>

Question	Answer	Marks
<b>Section C: Application question (a) = 6 marks</b>		
7	<b>Some people prefer to use ‘alternative’ techniques to manage pain, but it is not known whether these alternative techniques are effective when compared with medical or psychological techniques.</b>	
7(a)	<p><b>Describe <u>two</u> ‘alternative’ techniques used to manage pain.</b></p> <p><b>Syllabus:</b></p> <ul style="list-style-type: none"> <li>• <b>managing and controlling pain:</b> Medical techniques (e.g. surgical; chemical). Psychological techniques: cognitive strategies (e.g. attention diversion, non-pain imagery and cognitive redefinition); alternative techniques (e.g. acupuncture, stimulation therapy/TENS)</li> </ul> <p><b>Most likely</b> (any appropriate alternative to receive credit):</p> <ul style="list-style-type: none"> <li>• <b>Acupuncture</b> is where stainless steel needles are used to stimulate the body's 14 major meridians to increase the release of neurotransmitters called endorphins which block pain.</li> <li>• <b>TENS:</b> stimulation therapies are based on the principle 'fight pain with pain', or counter irritation which directs attention away from the stronger pain to the milder pain. One such pain control method is <b>transcutaneous electrical nerve stimulation (TENS)</b>. Electrodes are placed on the skin near where the patient feels pain and mild electric shocks are given, causing distraction. Partial success with chronic pain: not good with phantom limb, but good with arthritis.</li> </ul> <p><b>Marks:</b> up to 3 marks for each appropriate alternative technique.</p>	<b>6</b>
<b>Section C: Application question (b) = 8 marks</b>		
7(b)	<p><b>Suggest how <u>you</u> would design and conduct an investigation into the effectiveness of alternative techniques to manage pain.</b></p> <p><b>General:</b> In this question part each candidate is free to suggest a way in which the assessment request could be investigated; the ‘you’ is emphasised to show that in this question it is not <i>description</i> that is being assessed, but an individual <i>suggestion</i>. The question may be in the form of a suggestion for research, or an application. The question may allow a candidate a free choice of method to design their own study. It might be that a specific method is named in the question, and if it is this method must be addressed. Each answer should be considered individually as it applies to the mark scheme. Marks are awarded for methodological knowledge and how the methodology is applied to this topic area.</p> <p><b>Specific:</b> Candidates are free to choose <b>any method</b>. The choice of method should be appropriate and the answer should include the essential features of that method. Marks awarded for methodological knowledge and how methodology is applied to this topic area.</p>	<b>8</b>

Question	Answer	Marks
<b>Section C: Application question (a) = 8 marks</b>		
8	<b>A group of children saw a presentation about how to cycle more safely. It is important to know how many children will use this information.</b>	
8(a)	<p><b>Suggest how <u>you</u> would design and conduct an interview to find out whether the presentation to promote cycle safety was effective.</b></p> <p><b>General:</b> In this question part each candidate is free to suggest a way in which the assessment request could be investigated; the 'you' is emphasised to show that in this question it is not <i>description</i> that is being assessed, but an individual <i>suggestion</i>. The question may be in the form of a suggestion for research, or an application. The question may allow a candidate a free choice of method to design their own study. It might be that a specific method is named in the question, and if it is this method must be addressed. Each answer should be considered individually as it applies to the mark scheme. Marks are awarded for methodological knowledge and how the methodology is applied to this topic area.</p> <p><b>Specific:</b> The named method is an <b>interview</b> so candidates should show some knowledge of types of interview techniques (e.g. face-to-face; telephone). Fixed questions could be asked (structured interview) or it could be open-ended to gain additional information. The answer must consider 'children' as this is required in the question.</p>	<b>8</b>
<b>Section C: Application question (b) = 6 marks</b>		
8(b)	<p><b>Describe <u>one</u> study which has used the 'providing information' method.</b></p> <p><b>Syllabus:</b></p> <ul style="list-style-type: none"> <li>• <b>methods for promoting health:</b> Fear arousal (e.g. Janis and Feshbach, 1953; Leventhal et al, 1967). Yale model of communication. Providing information (e.g. Lewin, 1992)</li> </ul> <p><b>Most likely</b> (any appropriate study receives credit):</p> <ul style="list-style-type: none"> <li>• Providing medical information via leaflet <b>Lewin</b> (1992) devised the Heart Health Manual. 176 participants (who had had a heart attack) were given the manual with information about how to change their lifestyle. A control group did not receive the manual. Findings were that in the 'manual' group readmission was less than 10% compared to the control group of 25%.</li> <li>• providing information via media (e.g. Flay, 1987) 3 approaches: 1] provide negative info only; 2] for those who want to be helped provide first steps; 3] self help via TV audience</li> </ul> <p><b>Marks:</b> up to 6 marks determined by quality of answer.</p>	<b>6</b>

## PSYCHOLOGY AND ENVIRONMENT

Question	Answer	Marks
<b>Section A: Short answer question: (a) = 2 marks</b>		
9(a)	<p><b>Explain, in your own words, what is meant by ‘positive uses of sound (music) on stress reduction’.</b></p> <p><b>Typically:</b> noise is defined as ‘unwanted’ sound, and so the positive uses of sound (music) are said to be pleasant, and people feel good. In relation to consumer behaviour, music has been shown to reduce blood pressure for example. It has also been shown to aid stroke recovery.</p> <p><b>Marks:</b> 1 mark for comment on sound (music); 1 mark for comment relating to stress reduction.</p>	<b>2</b>
<b>Section A: Short answer question: (b) = 4 marks</b>		
9(b)	<p><b>Describe <u>one</u> study which has investigated the effect of music on stress reduction.</b></p> <p><b>Syllabus:</b></p> <ul style="list-style-type: none"> <li>• <b>positive uses of sound (music):</b> Consumer behaviour (e.g. North, 2003; North 1999); stress reduction (e.g. Chafin, 2004); performance (e.g. Mozart effect)</li> </ul> <p><b>Most likely:</b></p> <ul style="list-style-type: none"> <li>• <b>Chafin (2004)</b> had participants perform a challenging three-minute mental arithmetic task and then had to sit in silence or to listen to classical, jazz or pop music. Those who listened to classical music had significantly lower post-task systolic blood pressure levels than did participants who heard no music. Other musical styles did not produce significantly better recovery than silence.</li> </ul> <p><b>Marks:</b> up to 4 marks determined by quality of answer.</p>	<b>4</b>

Question	Answer	Marks
<b>Section B: Essay question: (a) = 8 marks</b>		
10(a)	<p><b>Describe what psychologists have discovered about environmental cognition.</b></p> <p>Candidates are likely to include some of the following details from the syllabus:</p> <ul style="list-style-type: none"> <li>• <b>definitions, measures, errors and individual differences in cognitive map:</b> Definitions, measures: sketch maps (Lynch, 1960); multidimensional scaling (e.g. Moar, 1987); errors and individual differences (e.g. Malinowski, 2001).</li> <li>• <b>cognitive maps in animals:</b> Cognitive maps in: squirrels (Jacobs and Linman, 1991); bees (Capaldi, 2000); pigeons and magnetite (Walcott, 1979).</li> <li>• <b>designing better maps:</b> wayfinding. Map design (Levine, 1982); wayfinding (Maguire et al., 1997); virtual wayfinding (Janzen et al., 2001).</li> </ul>	<b>8</b>
<b>Section B: Essay question: (b) = 12 marks</b>		
10(b)	<p><b>Evaluate what psychologists have discovered about environmental cognition, including a discussion of whether findings of studies conducted on animals can be generalised to humans.</b></p> <p><i>NOTE: any evaluative point can receive credit; the hints are for guidance only.</i></p> <p><u>Evaluation of theory:</u> internal strengths and weaknesses; theoretical issues: reductionism, determinism, ethnocentrism. Supporting/contradicting evidence; Comparisons and contrasts with alternative theory.</p> <p><u>Evaluation of research:</u> strengths and weaknesses of methods, sample, controls, procedure. Evaluation of and comparisons and/or contrasts with alternative methodologies.</p> <p><u>Evaluation of issues and debates:</u> <i>Any relevant debate can be raised</i>, such as qualitative versus quantitative data, snapshot versus longitudinal studies, extent of ecological validity, nature versus nurture; freedom versus determinism; reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness, application to real life.</p> <p><u>Named issue: Animals:</u> the debate could focus on generalising from animals to humans and/or whether animal studies should be conducted in a laboratory or a natural environment.</p>	<b>12</b>



Question	Answer	Marks
<b>Section C: Application question (a) = 8 marks</b>		
11	<b>Research has been done on how people behave in emergency situations (natural disasters/technological catastrophes) using simulations such as virtual reality computer programs.</b>	
11(a)	<p><b>Suggest how you would design a study using a simulation to investigate how people behave in emergency situations.</b></p> <p><b>General:</b> In this question part each candidate is free to suggest a way in which the assessment request could be investigated; the ‘you’ is emphasised to show that in this question it is not <i>description</i> that is being assessed, but an individual <i>suggestion</i>. The question may be in the form of a suggestion for research, or an application. The question may allow a candidate a free choice of method to design their own study. It might be that a specific method is named in the question, and if it is this method must be addressed. Each answer should be considered individually as it applies to the mark scheme. Marks are awarded for methodological knowledge and how the methodology is applied to this topic area.</p> <p><b>Specific:</b> The named method is a <b>simulation</b>, so candidates are expected to show knowledge of simulations. This could be conducted in a laboratory as an experiment with VR used to determine the IV etc. This could be used as a field experiment with (for example) participants on an actual aircraft who are told to evacuate. In these cases, all the features of experiments would apply.</p>	<b>8</b>

Question	Answer	Marks
<b>Section C: Application question (b) = 6 marks</b>		
11(b)	<p><b>Describe <u>two</u> other ways in which behaviour in emergency situations has been investigated.</b></p> <p><b>Syllabus:</b></p> <ul style="list-style-type: none"> <li>• <b>behaviours during events, and methodology:</b> Contagion (LeBon, 1895); scripts (Shank and Abelson, 1977). Laboratory experiments (e.g. Mintz, 1951), simulations and real life examples</li> </ul> <p><b>Most likely:</b></p> <ul style="list-style-type: none"> <li>• <b>Mintz (1951) laboratory:</b> each participant pulls on a string attached to a cone in a bottle. Only one cone can be removed at a time. Cones must be removed before water fills bottle. Problem solved if participants take turns but they do not. All rush to get cone out first. Mintz believes this replicated, safely, the behaviour of people in a real emergency situation. It had psychological realism.</li> <li>• <b>Kugihara (2007) laboratory:</b> used a computer generated 'game' to investigate how people behave.</li> <li>• Real life events such as the Chicago theatre fire.</li> <li>• <b>Rubin et al. (2005)</b> used a <b>telephone interview</b> to investigate the effects of the London bombings on travel intentions and desire to seek or use psychological services.</li> <li>• <b>Drury et al. (2007)</b> used <b>face-to-face interviews</b> to investigate how survivors of emergency situations behaved during the event.</li> </ul> <p><b>Marks:</b> up to 3 marks for each appropriate answer.  <b>NB</b> Candidates may focus on methods, and these would include interviews and laboratory experiments (as above).  <b>NB</b> Two distinct ways required for full credit.</p>	<b>6</b>

Question	Answer	Marks
<b>Section C: Application question (a) = 8 marks</b>		
12	<b>Edward Hall proposed four personal space zones that apply when interacting with other people.</b>	
12(a)	<p><b>Suggest how <u>you</u> would design and conduct an observational study to investigate whether people do have different zones for different people.</b></p> <p><b>General:</b> In this question part each candidate is free to suggest a way in which the assessment request could be investigated; the ‘you’ is emphasised to show that in this question it is not <i>description</i> that is being assessed, but an individual <i>suggestion</i>. The question may be in the form of a suggestion for research, or an application. The question may allow a candidate a free choice of method to design their own study. It might be that a specific method is named in the question, and if it is this method must be addressed. Each answer should be considered individually as it applies to the mark scheme. Marks are awarded for methodological knowledge and how the methodology is applied to this topic area.</p> <p><b>Specific:</b> The named method is an <b>observation</b>, so candidates are expected to show knowledge of the type (controlled, natural, participant, etc.), where the observation will be conducted, coding/response categories and sampling type (event, time, etc.). Finally, whether or not there are two or more observers. <b>NB</b> not all these features are needed for a max mark.</p>	<b>8</b>
<b>Section C: Application question (b) = 6 marks</b>		
12(b)	<p><b>Describe <u>two</u> ways in which personal space has been measured, other than by observation.</b></p> <p><b>Syllabus:</b></p> <ul style="list-style-type: none"> <li>• <b>definitions, types and measures:</b> Defining space (e.g. Hall, 1966) and territory (e.g. Altman, 1975). Alpha space and beta space. Measuring space: simulation (e.g. Little, 1968); stop-distance; space invasions.</li> </ul> <p><b>Most likely:</b></p> <ul style="list-style-type: none"> <li>• <b>Simulation method</b> (e.g. Little 1968 measured cultural differences in personal space).</li> <li>• <b>Stop-distance</b> (The participant usually is asked to stand some distance away and then to walk slowly toward the experimenter and to stop at a ‘comfortable’ point. E.g. Kennedy et al. (2009) and ‘SM’)</li> <li>• <b>Comfortable interpersonal distance scale</b> (CIDS)</li> <li>• <b>Invasion</b> of personal space (e.g. studies by Felipe and Sommer (1966) and Middlemist et al. (1974))</li> </ul> <p><b>Marks:</b> 3 marks for each description ×2. No credit for description of Hall’s zones as this is in <b>part (a)</b></p>	<b>6</b>

## PSYCHOLOGY AND ABNORMALITY

Question	Answer	Marks
<b>Section A: Short answer question: (a) = 2 marks</b>		
13(a)	<p><b>Explain, in your own words, what is meant by ‘cognitive-behavioural therapy’ (CBT).</b></p> <p><b>Typically:</b> Cognitive therapy is based on the principle that certain ways of thinking can trigger, or ‘fuel’, certain health problems. The aim is to change ways of thinking to avoid these ideas. Behaviour therapy aims to change any behaviours that are harmful or not helpful. CBT is a mixture of cognitive and behaviour therapies combined because behaviour often reflects thoughts about certain things or situations.</p> <p><b>Marks:</b> 1 for basic; 2 marks for elaboration.</p>	<b>2</b>
<b>Section A: Short answer question: (b) = 4 marks</b>		
13(b)	<p><b>Describe <u>one</u> study which has used cognitive-behavioural therapy (CBT) to treat kleptomania.</b></p> <p><b>Syllabus:</b></p> <ul style="list-style-type: none"> <li>• <b>coping with and reducing addiction and impulse control disorders:</b> Behavioural e.g. token economy; aversion therapy (for alcoholism). Cognitive behaviour therapy (e.g. Kohn, 2000) for kleptomania</li> </ul> <p><b>Most likely:</b></p> <p><b>Kleptomania:</b> is where a person has a need to collect (and/or hoard) things, often through stealing. The euphoria is gained through the act of stealing. Three treatments are likely:</p> <ul style="list-style-type: none"> <li>• <b>Kohn and Antonuccio (2002)</b> used <b>covert sensitisation</b> with images of getting arrested, going to court and spending time in jail successfully in the case study of Jay.</li> <li>• <b>Glover (2011)</b> used images of nausea and vomiting to treat a 14 year old with a history of kleptomania.</li> <li>• Candidates may also write about studies involving <b>Imaginal desensitisation:</b> teaching progressive muscle relaxation and the person visualises themselves being exposed to the situation that triggers the drive to carry out the impulsive behaviour.</li> </ul> <p><b>Marks:</b> up to 4 marks determined by quality of answer.</p>	<b>4</b>

Question	Answer	Marks
<b>Section B: Essay question: (a) = 8 marks</b>		
14(a)	<p><b>Describe what psychologists have discovered about phobias.</b></p> <p>Candidates are likely to include some of the following details from the syllabus:</p> <ul style="list-style-type: none"> <li>• <b>definitions, types/examples (case studies) of phobias:</b> Types: e.g. agoraphobia, blood phobia, dog phobia.</li> <li>• <b>explanations of phobias:</b> Behavioural (classical conditioning, e.g. Watson, 1920); Psychoanalytic (Freud, 1909); biomedical/genetic (e.g. Ost, 1992); cognitive (e.g. DiNardo et al., 1988).</li> <li>• <b>treating phobias:</b> Systematic desensitisation (Wolpe, 1958); flooding; applied tension (Ost et al., 1989); cognitive-behaviour therapy (Ost and Westling, 1995).</li> </ul>	<b>8</b>
<b>Section B: Essay question: (b) = 12 marks</b>		
14(b)	<p><b>Evaluate what psychologists have discovered about phobias, including a discussion about the psychoanalytic explanation of phobias.</b></p> <p><i>NOTE: any evaluative point can receive credit; the hints are for guidance only.</i></p> <p><u>Evaluation of theory:</u> internal strengths and weaknesses; theoretical issues: reductionism, determinism, ethnocentrism. Supporting/contradicting evidence; Comparisons and contrasts with alternative theory.</p> <p><u>Evaluation of research:</u> strengths and weaknesses of methods, sample, controls, procedure. Evaluation of and comparisons and/or contrasts with alternative methodologies.</p> <p><u>Evaluation of issues and debates:</u> <i>Any relevant debate can be raised</i>, such as qualitative versus quantitative data, snapshot versus longitudinal studies, extent of ecological validity, nature versus nurture; freedom versus determinism; reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness, application to real life.</p> <p><u>Named issue: psychoanalytic explanations.</u> Candidates could write about the psychoanalytic approach in general (but most likely the Freud study of little Hans) and this is acceptable if it is part of the discussion. Description cannot be credited. The psychoanalytic explanation could be contrasted with a behavioural or cognitive explanation (which is highly desirable), but description of alternatives scores no marks.</p>	<b>12</b>

Question	Answer	Marks
<b>Section C: Application question (a) = 6 marks</b>		
15	<b>An ongoing debate for psychologists is whether depression is caused by ‘biology’ or by ‘psychology’.</b>	
15(a)	<p><b>Describe the genetic explanation of depression <u>and</u> the cognitive explanation of depression.</b></p> <p><b>Syllabus:</b></p> <ul style="list-style-type: none"> <li>• <b>explanations of depression:</b> Biological: genetic and neurochemical; cognitive: Beck’s cognitive theory; learned helplessness/attributional style (Seligman, 1979).</li> </ul> <p><b>Most likely:</b></p> <ul style="list-style-type: none"> <li>• <b>Genetic:</b> Depression runs in families and the closer the genetic relationship, the more likely people are to be diagnosed with the disorder. Close family members, such as brothers, sisters, sons, daughters, fathers and mothers – share 50% of their genes. According to <b>Oruc et al. (1998)</b> first degree relatives of people diagnosed with depression are two or three times more likely to be diagnosed with depression than those who are not first degree relatives.</li> <li>• <b>Cognitive:</b> (candidates can legitimately choose ‘Beck’ or ‘Seligman’) <b>Seligman (1979)</b> suggested that a person’s attributional style was the key to understanding why people responded differently to adverse events. <b>Seligman et al. (1988)</b> If a person makes an internal attribution (they are the cause) and if they believe that this is stable and global (the cause is consistent and this applies everywhere) then they may feel helpless and may experience depression. <b>Beck (1979)</b> proposes that people react differently to aversive stimuli because of the thought that predispose the person to have negative automatic thoughts (NATs). When that happens, cognitive errors maintain the negative beliefs. Depression results from the negative cognitive triad, comprising unrealistically negative views about (i) the self, (ii) the world and (iii) the future.</li> </ul> <p><b>Marks:</b> 3 marks for each explanation.</p>	<b>6</b>

Question	Answer	Marks
<b>Section C: Application question (b) = 8 marks</b>		
15(b)	<p><b>Suggest how <u>you</u> would design and conduct a study to investigate whether the cause of depression is ‘biology’ or ‘psychology’.</b></p> <p><b>General:</b> In this question part each candidate is free to suggest a way in which the assessment request could be investigated; the ‘you’ is emphasised to show that in this question it is not <i>description</i> that is being assessed, but an individual <i>suggestion</i>. The question may be in the form of a suggestion for research, or an application. The question may allow a candidate a free choice of method to design their own study. It might be that a specific method is named in the question, and if it is this method must be addressed. Each answer should be considered individually as it applies to the mark scheme. Marks are awarded for methodological knowledge and how the methodology is applied to this topic area.</p> <p><b>Specific:</b> Candidates are free to choose <b>any method</b>. The choice of method should be appropriate and the answer should include the essential features of that method. Marks awarded for methodological knowledge and how methodology is applied to this topic area.</p>	<b>8</b>

Question	Answer	Marks
<b>Section C: Application question (a) = 8 marks</b>		
16	<b>Sometimes drugs are prescribed for people with obsessive-compulsive disorder (OCD).</b>	
16(a)	<p><b>Suggest how <u>you</u> would design and conduct a study using an interview to compare the effectiveness of drug treatments for OCD.</b></p> <p><b>General:</b> In this question part each candidate is free to suggest a way in which the assessment request could be investigated; the ‘you’ is emphasised to show that in this question it is not description that is being assessed, but an individual suggestion. The question may be in the form of a suggestion for research, or an application. The question may allow a candidate a free choice of method to design their own study. It might be that a specific method is named in the question, and if it is this method must be addressed. Each answer should be considered individually as it applies to the mark scheme. Marks are awarded for methodological knowledge and how the methodology is applied to this topic area.</p> <p><b>Specific:</b> The named method is an <b>interview</b> so candidates should show some knowledge of types of interview techniques (e.g. face-to-face; telephone). Fixed questions could be asked (structured interview) or it could be open-ended to gain additional information.</p>	<b>8</b>
<b>Section C: Application question (b) = 6 marks</b>		
16(b)	<p><b>Describe <u>two</u> other ways in which OCD can be treated.</b></p> <p><b>Syllabus:</b></p> <ul style="list-style-type: none"> <li>• <b>treatments for obsessive/compulsive disorder:</b> Drug therapy; cognitive-behaviour therapy; psychoanalytic therapy.</li> </ul> <p><b>Most likely:</b></p> <ul style="list-style-type: none"> <li>• <b>Cognitive behavioural therapy</b> changes the way a person thinks (the cognitive part) and the way a person behaves (the behavioural part). It may focus on how a person responds to a particular situation. This is done not by going back to the cause of the problem, but by focusing on the present symptoms. It works by looking at how a person thinks about how an event has affected how they felt and what they did. If negative thoughts can be reinterpreted or changed for more positive or realistic thoughts, then the person will feel better and their behaviour will change. All of this should be applied specifically to OCD.</li> <li>• <b>Psychoanalytic psychotherapy</b> is a ‘talking treatment’ aimed at resolving the conflict arising from the id and ego. To access the unconscious free association can be used.</li> </ul> <p><b>Marks:</b> 3 marks per way, determined by quality of answer.</p>	<b>6</b>



## PSYCHOLOGY AND ORGANISATIONS

Question	Answer	Marks
<b>Section A: Short answer question: (a) = 2 marks</b>		
17(a)	<p><b>Explain, in your own words, what is meant by the term ‘job design’.</b></p> <p><b>Typically:</b> job design is the organisation of the job a worker performs. By changing the design (e.g. rotation) workers can work on different jobs.</p> <p><b>Marks:</b> 1 mark for basic statement and 2 marks for elaboration/example.</p>	<b>2</b>
<b>Section A: Short answer question: (b) = 4 marks</b>		
17(b)	<p><b>Describe <u>two</u> ways in which jobs can be designed.</b></p> <p><b>Syllabus:</b></p> <ul style="list-style-type: none"> <li>• <b>Job design:</b> Job characteristics (e.g. Hackman &amp; Oldham, 1980). Job design: enrichment, rotation and enlargement. Designing jobs that motivate.</li> </ul> <p><b>Most likely</b></p> <ul style="list-style-type: none"> <li>• <b>job rotation</b> is where workers are moved from one task to another to avoid boredom. This may be done on a daily, weekly or even a monthly basis depending on the task.</li> <li>• <b>job enrichment</b> is where workers are given more responsibility in the task they do. This may also include redesigning the task (as they are the user, the expert) or it may involve being responsible for a team of workers completing a task.</li> <li>• <b>job enlargement</b> allows workers to take on additional and more varied tasks. No change in responsibility or involvement but an increase in work-load.</li> </ul> <p><b>Marks:</b> 1 mark for identification of design and 1 mark for elaboration/example ×2</p>	<b>4</b>

Question	Answer	Marks
<b>Section B: Essay question: (a) = 8 marks</b>		
18(a)	<p><b>Describe what psychologists have learned about group behaviour in organisations.</b></p> <p>Candidates are likely to include some of the following details from the syllabus:</p> <ul style="list-style-type: none"> <li>• <b>Group dynamics, cohesiveness and teamwork:</b> Group development (e.g. Tuckman 1965; Woodcock, 1979). Group cohesiveness, teambuilding and team performance. Characteristics of successful teams.</li> <li>• <b>Decision-making:</b> The decision-making process (e.g. Wedley &amp; Field, 1983). Decision style and individual differences in decision-making. Individual versus group decisions. Groupthink (e.g. Janis, 1972) and group polarisation. Strategies to avoid groupthink and training to avoid poor decisions (e.g. Bottger &amp; Yetton, 1987)</li> <li>• <b>Group conflict:</b> Major causes of group conflict: organisational and interpersonal. Positive and negative effects of conflict. Managing group conflict (e.g. Thomas, 1976).</li> </ul>	<b>8</b>
<b>Section B: Essay question: (b) = 12 marks</b>		
18(b)	<p><b>Evaluate what psychologists have learned about group behaviour in organisations, including a discussion about individual differences.</b></p> <p><i>NOTE: any evaluative point can receive credit; the hints are for guidance only.</i></p> <p><u>Evaluation of theory:</u> internal strengths and weaknesses; theoretical issues: reductionism, determinism, ethnocentrism. Supporting/contradicting evidence; Comparisons and contrasts with alternative theory.</p> <p><u>Evaluation of research:</u> strengths and weaknesses of methods, sample, controls, procedure. Evaluation of and comparisons and/or contrasts with alternative methodologies.</p> <p><u>Evaluation of issues and debates:</u> <i>Any relevant debate can be raised</i>, such as qualitative versus quantitative data, snapshot versus longitudinal studies, extent of ecological validity, nature versus nurture; freedom versus determinism; reductionism versus holism. Issues can be raised such as ethics, validity, ethnocentrism, effectiveness, application to real life.</p> <p><u>Named issue: individual differences.</u> This psychological approach takes more of an idiographic approach i.e it is interested in individual differences because of biology, culture, gender, ethnicity etc. In relation to group behaviour, is it possible to generalise from one worker in a group to others, or from one group to another, or are there individual differences?</p>	<b>12</b>

Question	Answer	Marks
<b>Section C: Application question (a) = 6 marks</b>		
19	<b>Workers are motivated by different things and you need to find out what motivates workers the most.</b>	
19(a)	<p><b>Using examples, describe <u>two</u> types of reward system.</b></p> <p><b>Syllabus:</b></p> <ul style="list-style-type: none"> <li>• <b>Motivators at work:</b> Intrinsic and extrinsic motivation. Types of rewards systems: e.g. pay, bonuses, profit sharing. Performance-related pay. Non-monetary rewards: praise, respect, recognition, empowerment and a sense of belonging. Career structure and promotion prospects.</li> </ul> <p><b>Most likely:</b> Candidates are likely to produce different types of answer in response to this question. Possibilities are:</p> <ul style="list-style-type: none"> <li>• a distinction between intrinsic and extrinsic motivators.</li> <li>• a distinction between monetary and non-monetary reward systems</li> <li>• a distinction between specific types of a system (e.g. profit sharing and performance related pay)</li> </ul> <p>For examples of each, see syllabus details above.</p> <p><b>Marks:</b> 3 marks for each type depending on quality of answer.</p>	<b>6</b>
<b>Section C: Application question (b) = 8 marks</b>		
19(b)	<p><b>Suggest how <u>you</u> would design and conduct a questionnaire study to find out what motivates workers the most.</b></p> <p><b>General:</b> In this question part each candidate is free to suggest a way in which the assessment request could be investigated; the 'you' is emphasised to show that in this question it is not <i>description</i> that is being assessed, but an individual <i>suggestion</i>. The question may be in the form of a suggestion for research, or an application. The question may allow a candidate a free choice of method to design their own study. It might be that a specific method is named in the question, and if it is this method must be addressed. Each answer should be considered individually as it applies to the mark scheme. Marks are awarded for methodological knowledge and how the methodology is applied to this topic area.</p> <p><b>Specific:</b> The named method is a <b>questionnaire</b> so candidates are expected to show knowledge of questionnaire type/design (e.g. open or closed), examples of questions (that clearly relate to ethics and personal space), any rating scale that may be used, possibly where the questionnaire will be conducted, on whom, and how the answers will be scored. <b>NB</b> not all these features are needed for a max mark.</p>	<b>8</b>

Question	Answer	Marks
<b>Section C: Application question (a) = 8 marks</b>		
20	<b>Beeps, buzzes and bells can be used as auditory warnings of machine malfunction</b>	
20(a)	<p><b>Suggest how <u>you</u> would design and conduct a field experiment to find out which sound is most effective in alerting workers to a machine malfunction.</b></p> <p><b>General:</b> In this question part each candidate is free to suggest a way in which the assessment request could be investigated; the ‘you’ is emphasised to show that in this question it is not <i>description</i> that is being assessed, but an individual <i>suggestion</i>. The question may be in the form of a suggestion for research, or an application. The question may allow a candidate a free choice of method to design their own study. It might be that a specific method is named in the question, and if it is this method must be addressed. Each answer should be considered individually as it applies to the mark scheme. Marks are awarded for methodological knowledge and how the methodology is applied to this topic area.</p> <p><b>Specific:</b> The named method is an <b>experiment</b>, so inclusion of field experiment, IV and DV, controls, and design, task to be completed and sample, for example, are essential features. <b>NB</b> not all these features are needed for a max mark.</p>	<b>8</b>
<b>Section C: Application question (b) = 6 marks</b>		
20(b)	<p><b>Using examples, describe different errors that could be made when operating machines.</b></p> <p><b>Syllabus:</b></p> <ul style="list-style-type: none"> <li>• <b>Ergonomics:</b> Operator-machine systems: visual and auditory displays, controls. Errors and accidents in operator-machine systems. Reducing errors: theory A and theory B (Reason, 2000).</li> </ul> <p><b>Most likely</b> (any other appropriate technique to be credited): Riggio (1990) suggests when operating machines there can be decision-making errors of:</p> <ul style="list-style-type: none"> <li>• Omission: failing to do something, such as forgetting to turn something off,</li> <li>• Commission: performing an act incorrectly i.e. doing something wrong,</li> <li>• Sequence errors: doing something out of order; and</li> <li>• Timing errors: doing something too quickly, or too slowly.</li> </ul> <p><b>Marks:</b> at least two types are needed: 1 mark for correct identification, 1 mark for elaboration and 1 mark for example ×2.</p>	<b>6</b>