



## General Certificate of Education

# Psychology 5181/6181 *Specification A*

*PYA4 Social Psychology, Physiological Psychology,  
Cognitive Psychology, Developmental Psychology  
and Comparative Psychology*

## Mark Scheme

### *2006 examination – June series*

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation meeting attended by all examiners and is the scheme which was used by them in this examination. The standardisation meeting ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for the standardisation meeting each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed at the meeting and legislated for. If, after this meeting, examiners encounter unusual answers which have not been discussed at the meeting they are required to refer these to the Principal Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of candidates' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

**UNIT 4 (PYA4)**  
**QUALITY OF WRITTEN COMMUNICATION**  
**(QoWC)**

<b>Band 3</b>	The work is characterised by some or all of the following: <ul style="list-style-type: none"> <li>• clear expression of ideas</li> <li>• use of a good range of specialist terms</li> <li>• few errors of grammar, punctuation and spelling.</li> </ul>	<b>4-3 marks</b>
<b>Band 2</b>	The work is characterised by: <ul style="list-style-type: none"> <li>• reasonable expression of ideas</li> <li>• the use of some specialist terms</li> <li>• reasonable grammar, punctuation and spelling.</li> </ul>	<b>2-1 marks</b>
<b>Band 1</b>	The work is characterised by: <ul style="list-style-type: none"> <li>• poor expression of ideas</li> <li>• the use of a limited range of specialist terms</li> <li>• poor grammar, punctuation and spelling.</li> </ul>	<b>0 marks</b>

**PYA4 ASSESSMENT OBJECTIVE 1**

	<b>Content</b>	<b>Detail and accuracy</b>	<b>Organisation &amp; structure</b>	<b>Breadth and depth</b>
<b>12-11</b>	Substantial	Accurate and well-detailed	Coherent	Substantial evidence of both and balance achieved
<b>10-9</b>	Slightly limited	Accurate & reasonably detailed	Coherent	Evidence of both but imbalanced
<b>8-7</b>	Limited	Generally accurate & reasonably detailed	Reasonably constructed	Increasing evidence of breadth and/or depth
<b>6-5</b>	Basic	Generally accurate, lacks detail	Reasonably constructed	Some evidence of breadth and/or depth
<b>4-3</b>	Rudimentary	Sometimes flawed	Sometimes focused	
<b>2-0</b>	Just discernible	Weak/muddled/inaccurate	Wholly/ mainly irrelevant	

**PYA4 ASSESSMENT OBJECTIVE 2**

	<b>Evaluation is</b>	<b>Material is used</b>	<b>Selection and elaboration</b>
<b>12-11</b>	Thorough	Highly effective	Appropriate selection and coherent elaboration
<b>10-9</b>	Slightly limited	Effective	Appropriate selection and elaboration
<b>8-7</b>	Limited	Reasonably effective	Reasonable elaboration
<b>6-5</b>	Basic	Restricted	Some evidence of elaboration
<b>4-3</b>	Superficial and rudimentary	Not effective	No evidence of elaboration
<b>2-0</b>	Muddled and incomplete		Wholly or mainly irrelevant

**General Note**

In general, and unless otherwise indicated by the specific question and its marking scheme, description of research studies may be credited as AO1 or AO2. The critical element for AO2 credit is whether the research study is *explicitly* introduced as part of evaluation/commentary and findings/conclusions similarly linked as part of sustained evaluation/commentary ('topped and tailed'). If this is the case then the *whole* presentation of a research study should be credited as AO2. Otherwise the study may earn AO1 marks.

**SECTION A: SOCIAL PSYCHOLOGY**

**1**

**Total for this question: 24 marks**

Discuss **one or more** explanations relating to the reduction of prejudice.

*(24 marks)*

**AO1**

AO1 material should focus on description of one or more explanations relating to prejudice reduction. There are a number of approaches to prejudice reduction, including educational processes, increased contact (eg Allport), common goals (eg Sherif's Robber's Cave study, Aronson & Osherow's jigsaw classroom), and strategies derived from social identity theory eg Brewer & Miller's decategorisation model). Candidates often have problems distinguishing explanations from studies illustrating explanations. For the purposes of this question the term 'explanation' can be interpreted as an explanation *of* prejudice reduction or as an explanation of *how* prejudice might be reduced eg through increased contact.

Candidates may also present material on the origins and/or maintenance of prejudice. Such material can only receive credit if it provides any clear insights into prejudice reduction.

One or more explanations are required, and for candidates presenting more than one there will be a depth-breadth trade off for AO1 and AO2.

**AO2**

Explanations can be evaluated in terms of research evidence and/or their success in explaining prejudice reduction in the real world (eg integration programmes). Key issues with many studies include the extent to which conditions are carefully controlled so that findings rarely generalise beyond the experimental situation, and the possibility that increased contact can actually increase prejudice.

Research studies that have been credited as AO1 material *illustrating* an explanation clearly cannot be double credited under AO2 as supporting it.

Explanations can also be evaluated by comparison with alternative explanations. However, alternative explanations must be used as *effective* commentary/evaluation to earn AO2 credit.

**AO1: Description of one or more explanations relating to the reduction of prejudice.**

<b>Band</b>	<b>Mark Allocation</b>	<b>Marks</b>
<b>Band 3 Top</b>	Description of one or more explanations relating to the reduction of prejudice is <b>substantial</b> . It is <b>accurate and well-detailed</b> . The organisation and structure of the answer are <b>coherent</b> , with <b>substantial evidence</b> of breadth and depth.	<b>12-11</b>
<b>Band 3 Bottom</b>	Description of one or more explanations relating to the reduction of prejudice is <b>slightly limited</b> . It is <b>accurate and reasonably detailed</b> . The organisation and structure of the answer are <b>coherent</b> , with <b>evidence</b> of breadth and depth.	<b>10-9</b>
<b>Band 2 Top</b>	Description of one or more explanations relating to the reduction of prejudice is <b>limited</b> . It is <b>generally accurate and reasonably detailed</b> . The organisation and structure of the answer are <b>reasonably constructed</b> , with <b>increasing evidence</b> of breadth and/or depth.	<b>8-7</b>
<b>Band 2 Bottom</b>	Description of one or more explanations relating to the reduction of prejudice is <b>basic</b> . It is <b>generally accurate but lacks detail</b> . The organisation and structure of the answer are <b>reasonable</b> , with <b>some evidence</b> of breadth and/or depth.	<b>6-5</b>
<b>Band 1 Top</b>	Description of one or more explanations relating to the reduction of prejudice is <b>rudimentary and sometimes flawed</b> . There is <b>some focus</b> on the question. The organisation and structure of the answer are <b>reasonable</b> .	<b>4-3</b>
<b>Band 1 Bottom</b>	Description of one or more explanations relating to the reduction of prejudice is <b>just discernible or mainly irrelevant</b> . It is <b>weak and shows muddled</b> understanding. The answer may be <b>wholly irrelevant</b> to the question's requirement.	<b>2-0</b>

**AO2: Evaluation of one or more explanations relating to the reduction of prejudice.**

<b>Band</b>	<b>Mark Allocation</b>	<b>Marks</b>
<b>Band 3 Top</b>	Evaluation of one or more explanations relating to the reduction of prejudice is <b>thorough</b> . The material is used in a <b>highly effective</b> manner and shows evidence of <b>appropriate selection and coherent elaboration</b> .	<b>12-11</b>
<b>Band 3 Bottom</b>	Evaluation of one or more explanations relating to the reduction of prejudice is <b>slightly limited</b> . The material is used in an <b>effective</b> manner and shows evidence of <b>appropriate selection and elaboration</b> .	<b>10-9</b>
<b>Band 2 Top</b>	Evaluation of one or more explanations relating to the reduction of prejudice is <b>limited</b> . The material is used in a <b>reasonably effective</b> manner and shows <b>reasonable elaboration</b> .	<b>8-7</b>
<b>Band 2 Bottom</b>	Evaluation of one or more explanations relating to the reduction of prejudice is <b>basic</b> . The material is used in a <b>restricted</b> manner and shows <b>some evidence of elaboration</b> .	<b>6-5</b>
<b>Band 1 Top</b>	Evaluation of one or more explanations relating to the reduction of prejudice is <b>superficial and rudimentary</b> . The material is <b>not used effectively</b> and shows <b>no evidence of elaboration</b> .	<b>4-3</b>
<b>Band 1 Bottom</b>	Evaluation of one or more explanations relating to the reduction of prejudice is <b>muddled and mainly irrelevant</b> . The material may be <b>wholly irrelevant</b> .	<b>2-0</b>

2

**Total for this question: 24 marks**

Outline and evaluate **two** explanations relating to the breakdown of relationships. (24 marks)

**AO1**

For the purposes of this question the term ‘explanation’ can be interpreted fairly loosely. Stages of relationship breakdown such as Duck’s are acceptable as AO1 material. Candidates may also introduce more theoretical accounts such as equity or balance models. Accounts of the *effects* of relationship breakdown are not explanations and cannot receive credit. Candidates presenting more than two explanations should have the best two credited as AO1.

Candidates are likely to present a range of material on relationships, including formation, maintenance, cultural variations etc. Credit can only be given where the relevance to relationship breakdown is *explicit*. However there is no restriction on the *types* of relationship involved, and material on eg friendships and understudied relationships would be fully creditable.

**AO2**

Evaluation of explanations can be in terms of research evidence, cultural or gender biases underlying the explanations or the research evidence supporting them, or through comparison with alternative explanations. Comparison of the two chosen explanations is not required for marks across the range but would be an effective way of accessing AO2 marks. Further explanations may be introduced, but must be used as *effective* evaluation to earn AO2 marks, rather than simply being described. General points on cultural and gender biases must also be explicitly linked to the explanations under discussion to earn marks.

This is an area where weaker candidates may introduce anecdotal material. This is unlikely to gain marks, but occasionally one or two relevant points are made which may merit AO1 or AO2 marks.

Candidates may also simply describe a list of factors involved in relationship breakdown without embedding them in an explanation. Examiners should select the two that can be marked in the candidate’s best interest. Such answers are likely to be limited.

Candidates are required to consider two explanations, and those outlining and/or evaluating only one are showing partial performance, and can earn a maximum of 8 marks for AO1 and 8 marks for AO2.

**AO1: Outline of two explanations relating to the breakdown of relationships.**

<b>Band</b>	<b>Mark Allocation</b>	<b>Marks</b>
<b>Band 3 Top</b>	Outline of two explanations relating to the breakdown of relationships is <b>substantial</b> . It is <b>accurate and well-detailed</b> . The organisation and structure of the answer are <b>coherent</b> , with a <b>reasonable balance</b> between the two explanations.	<b>12-11</b>
<b>Band 3 Bottom</b>	Outline of two explanations relating to the breakdown of relationships is <b>slightly limited</b> . It is <b>accurate and reasonably detailed</b> . The organisation and structure of the answer are <b>coherent</b> , with a <b>reasonable balance</b> between the two explanations.	<b>10-9</b>
<b>Band 2 Top</b>	Outline of two explanations relating to the breakdown of relationships is <b>limited</b> . It is <b>generally accurate and reasonably detailed</b> . The organisation and structure of the answer are <b>reasonably constructed</b> , though there may be an <b>imbalance</b> in coverage of the two explanations. <i>Partial performance is substantial, accurate and well-detailed (top of band) or slightly limited, accurate and reasonably detailed (bottom of band).</i>	<b>8-7</b>
<b>Band 2 Bottom</b>	Outline of two explanations relating to the breakdown of relationships is <b>basic</b> . It is <b>generally accurate but lacks detail</b> . The organisation and structure of the answer are <b>reasonable</b> , though there may be an <b>imbalance</b> in coverage of two explanations. <i>Partial performance is limited, generally accurate and reasonably detailed.</i>	<b>6-5</b>
<b>Band 1 Top</b>	Outline of two explanations relating to the breakdown of relationships is <b>rudimentary and sometimes flawed</b> . There is <b>some focus</b> on the question. The organisation and structure of the answer are <b>reasonable</b> , with <b>some</b> coverage of at least two explanations. <i>Partial performance is basic, generally accurate but lacking detail.</i>	<b>4-3</b>
<b>Band 1 Bottom</b>	Outline of two explanations relating to the breakdown of relationships is <b>just discernible and mainly irrelevant</b> . It is <b>weak and shows muddled</b> understanding. The answer may be <b>wholly irrelevant</b> to the question's requirement. <i>Partial performance is rudimentary and sometimes flawed with little focus on the question.</i>	<b>2-0</b>

**AO2: Evaluation of two explanations relating to the breakdown of relationships.**

<b>Band</b>	<b>Mark Allocation</b>	<b>Marks</b>
<b>Band 3 Top</b>	Evaluation of two explanations relating to the breakdown of relationships is <b>thorough</b> . The material is used in a <b>highly effective</b> manner and shows evidence of <b>appropriate selection and coherent elaboration</b> .	<b>12-11</b>
<b>Band 3 Bottom</b>	Evaluation of two explanations relating to the breakdown of relationships is <b>slightly limited</b> . The material is used in an <b>effective</b> manner and shows evidence of <b>appropriate selection and elaboration</b> .	<b>10-9</b>
<b>Band 2 Top</b>	Evaluation of two explanations relating to the breakdown of relationships is <b>limited</b> . The material is used in a <b>reasonably effective</b> manner and shows <b>reasonable elaboration</b> . <i>Partial performance is thorough, highly effective and coherent (top of band) or slightly limited and effective (bottom of band).</i>	<b>8-7</b>
<b>Band 2 Bottom</b>	Evaluation of two explanations relating to the breakdown of relationships is <b>basic</b> . The material is used in a <b>restricted</b> manner and shows <b>some evidence of elaboration</b> . <i>Partial performance is limited and reasonably effective with reasonable elaboration.</i>	<b>6-5</b>
<b>Band 1 Top</b>	Evaluation of two explanations relating to the breakdown of relationships is <b>superficial and rudimentary</b> . The material is <b>not used effectively</b> and shows <b>no evidence of elaboration</b> . <i>Partial performance is basic and restricted with some evidence of elaboration.</i>	<b>4-3</b>
<b>Band 1 Bottom</b>	Evaluation of two explanations relating to the breakdown of relationships is <b>muddled and mainly irrelevant</b> . The material may be <b>wholly irrelevant</b> . <i>Partial performance is superficial and not used effectively with no evidence of elaboration.</i>	<b>2-0</b>

3

Total for this question: 24 marks

Discuss research into the effects of environmental stressors on aggressive behaviour. (24 marks)
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**AO1**

There is a potentially large range of environmental stressors available to candidates, but they are likely to focus on temperature (eg Baron & Bell's curvilinear relationship), noise (eg Donnerstein & Wilson's study of 'anger', noise and presenting electric shocks), and crowding (eg Freedman's work on gender differences in the effects of crowding on aggression). If other stressors are introduced, such as the workplace or hassles, a judgement would need to be made on the extent to which they are 'environmental' and the degree of focus on aggressive behaviour. The candidate would *not* need to justify them explicitly to gain credit. The only exception would be media effects on aggression. As this is from a separate part of the Specification such material is *not* acceptable *unless* the candidate makes an explicit and convincing argument for the media as an environmental stressor. On the other side of the question, the focus is specifically on the effects of stressors on *aggressive* behaviour and not on other effects of environmental stressors. Although unlikely, a *metaperspective* on the role of environmental stressors in aggressive behaviour would be a legitimate approach. The question is not limited to human research, and studies with non-human animals are acceptable as long as they focus on environmental stressors and aggression.

**AO2**

Evaluation may come in various forms. Research studies often have methodological problems, in particular their relevance to real-life human aggression. Alternative explanations of aggression, such as biological or social psychological, may be introduced but can only earn AO2 marks if they are used as effective commentary rather than simply being described. Better answers may consider the problems of defining aggression in the first place and the range of possible aggressive behaviours.

Candidates covering only one stressor are showing partial performance and can earn a maximum of 8 marks for AO1 and 8 marks for AO2. Additionally, some candidates may focus on studies on frustration and stress without explicit mention of aggression. Such answers are limited to the top of band 2 for both AO1 and AO2.



**AO1: Description of research into the effects of environmental stressors on aggressive behaviour.**

<b>Band</b>	<b>Mark Allocation</b>	<b>Marks</b>
<b>Band 3 Top</b>	Description of research into the effects of environmental stressors on aggressive behaviour is <b>substantial</b> . It is <b>accurate and well-detailed</b> . The organisation and structure of the answer are <b>coherent</b> , with <b>substantial evidence</b> of breadth and depth.	<b>12-11</b>
<b>Band 3 Bottom</b>	Description of research into the effects of environmental stressors on aggressive behaviour is <b>slightly limited</b> . It is <b>accurate and reasonably detailed</b> . The organisation and structure of the answer are <b>coherent</b> , with <b>evidence</b> of breadth and depth.	<b>10-9</b>
<b>Band 2 Top</b>	Description of research into the effects of environmental stressors on aggressive behaviour is <b>limited</b> . It is <b>generally accurate and reasonably detailed</b> . The organisation and structure of the answer are <b>reasonably constructed</b> , with <b>increasing evidence</b> of breadth and/or depth. <i>Partial performance is substantial, accurate and well-detailed (top of band) or slightly limited, accurate and reasonably detailed (bottom of band).</i>	<b>8-7</b>
<b>Band 2 Bottom</b>	Description of research into the effects of environmental stressors on aggressive behaviour is <b>basic</b> . It is <b>generally accurate but lacks detail</b> . The organisation and structure of the answer are <b>reasonable</b> , with <b>some evidence</b> of breadth and/or depth. <i>Partial performance is limited, generally accurate and reasonably detailed.</i>	<b>6-5</b>
<b>Band 1 Top</b>	Description of research into the effects of environmental stressors on aggressive behaviour is <b>rudimentary and sometimes flawed</b> . There is <b>some focus</b> on the question. The organisation and structure of the answer are <b>reasonable</b> . <i>Partial performance is basic, generally accurate and lacking in detail.</i>	<b>4-3</b>
<b>Band 1 Bottom</b>	Description of research into the effects of environmental stressors on aggressive behaviour is <b>just discernible and mainly irrelevant</b> . It is <b>weak and shows muddled</b> understanding. The answer may be <b>wholly irrelevant</b> to the question's requirement. <i>Partial performance is rudimentary and sometimes flawed with little focus on the question.</i>	<b>2-0</b>

**AO2: Evaluation of research into the effects of environmental stressors on aggressive behaviour.**

<b>Band</b>	<b>Mark Allocation</b>	<b>Marks</b>
<b>Band 3 Top</b>	Evaluation of research into the effects of environmental stressors on aggressive behaviour is <b>thorough</b> . The material is used in a <b>highly effective</b> manner and shows evidence of <b>appropriate selection and coherent elaboration</b> .	<b>12-11</b>
<b>Band 3 Bottom</b>	Evaluation of research into the effects of environmental stressors on aggressive behaviour is <b>slightly limited</b> . The material is used in an <b>effective</b> manner and shows evidence of <b>appropriate selection and elaboration</b> .	<b>10-9</b>
<b>Band 2 Top</b>	Evaluation of research into the effects of environmental stressors on aggressive behaviour is <b>limited</b> . The material is used in a <b>reasonably effective</b> manner and shows <b>reasonable elaboration</b> . <i>Partial performance is thorough, highly effective and coherent (top of band) or slightly limited and effective (bottom of band).</i>	<b>8-7</b>
<b>Band 2 Bottom</b>	Evaluation of research into the effects of environmental stressors on aggressive behaviour is <b>basic</b> . The material is used in a <b>restricted</b> manner and shows <b>some evidence of elaboration</b> . <i>Partial performance is limited and reasonably effective with reasonable elaboration.</i>	<b>6-5</b>
<b>Band 1 Top</b>	Evaluation of research into the effects of environmental stressors on aggressive behaviour is <b>superficial and rudimentary</b> . The material is <b>not used effectively</b> and shows <b>no evidence of elaboration</b> . <i>Partial performance is basic and restricted with some evidence of elaboration.</i>	<b>4-3</b>
<b>Band 1 Bottom</b>	Evaluation of research into the effects of environmental stressors on aggressive behaviour is <b>muddled and mainly irrelevant</b> . The material may be <b>wholly or irrelevant</b> . <i>Partial performance is superficial and not used effectively with no evidence of elaboration.</i>	<b>2-0</b>

**SECTION B: PHYSIOLOGICAL PSYCHOLOGY**

**4**

**Total for this question: 24 marks**

(a) Outline the functional organisation of the cerebral cortex.

(12 marks)

(b) Using research evidence, explain how ‘distributed functions’ offers an alternative to ‘localisation of function’ as a way of understanding the functioning of the cerebral cortex.

(12 marks)

**(a) AO1**

AO1 material will consist of a description of aspects of the functional organisation of the cerebral cortex. This can include intrahemispheric areas given over to primary sensory and motor functions and the mirror image arrangement across the two hemispheres. Association cortex is likely to be covered along with secondary sensory regions, and functions of association cortex would be directly relevant. These can include language functions, and although separated in the Specification a description of hemisphere asymmetries of function cannot be disqualified from this question. Less likely would be functional organisation within particular regions, such as the modular arrangement of visual cortex (eg orientation columns), but again this would be creditable.

An approach based on the *lobes* of the cerebral hemispheres is acceptable as long as the focus is on *function*, eg the occipital lobe and visual functions.

**(b) AO2**

Before considering distributed functions as an alternative to localisation approaches, candidates are likely to review research evidence for either approach. They are likely to focus on the work of Lashley and his laws of equipotentiality and mass action. Although very dated by now this work raised most of the key issues and can be fully credited. Lesion and stimulation studies over the years have contributed to the debate, but the emphasis has to be on the *support* given to either approach rather than the studies themselves. Motor or somatosensory cortex or functionally specific modules in the visual cortex would be excellent examples for the localisation approach, while evidence for parallel processing of visual characteristics would support a ‘distributed’ approach.

To access Band 3, candidates must refer to *research evidence*. They should also *explicitly* address the issue of distributed functions as an *alternative* to localisation of function. This can be achieved by pointing out the necessity for the distributed approach eg using visual perception as an example, or that, more generally, the range of brain functions requires more than the localisation approach.

**AO1: Outline of the functional organisation of the cerebral cortex.**

<b>Band</b>	<b>Mark Allocation</b>	<b>Marks</b>
<b>Band 3 Top</b>	Outline of the functional organisation of the cerebral cortex is <b>substantial</b> . It is <b>accurate and well-detailed</b> . The organisation and structure of the answer are <b>coherent</b> , with <b>substantial evidence</b> of breadth and depth.	<b>12-11</b>
<b>Band 3 Bottom</b>	Outline of the functional organisation of the cerebral cortex is <b>slightly limited</b> . It is <b>accurate and reasonably detailed</b> . The organisation and structure of the answer are <b>coherent</b> , with <b>evidence</b> of breadth and depth.	<b>10-9</b>
<b>Band 2 Top</b>	Outline of the functional organisation of the cerebral cortex is <b>limited</b> . It is <b>generally accurate and reasonably detailed</b> . The organisation and structure of the answer are <b>reasonably constructed</b> , with <b>increasing evidence</b> of breadth and/or depth.	<b>8-7</b>
<b>Band 2 Bottom</b>	Outline of the functional organisation of the cerebral cortex is <b>basic</b> . It is <b>generally accurate but lacks detail</b> . The organisation and structure of the answer are <b>reasonable</b> , with <b>some evidence</b> of breadth and/or depth.	<b>6-5</b>
<b>Band 1 Top</b>	Outline of the functional organisation of the cerebral cortex is <b>rudimentary and sometimes flawed</b> . There is <b>some focus</b> on the question. The organisation and structure of the answer are <b>reasonable</b> .	<b>4-3</b>
<b>Band 1 Bottom</b>	Outline of the functional organisation of the cerebral cortex is <b>just discernible and mainly irrelevant</b> . It is <b>weak and shows muddled</b> understanding. The answer may be <b>wholly irrelevant</b> .	<b>2-0</b>

**AO2: Explanation of ‘distributed functions’ as an alternative to ‘localisation of function’ as a way of understanding the functioning of the cerebral cortex.**

<b>Band</b>	<b>Mark Allocation</b>	<b>Marks</b>
<b>Band 3 Top</b>	Explanation of ‘distributed functions’ as an alternative to ‘localisation of function’ as a way of understanding the functioning of the cerebral cortex is <b>thorough</b> . The material is used in a <b>highly effective</b> manner and shows evidence of <b>appropriate selection and coherent elaboration</b> .	<b>12-11</b>
<b>Band 3 Bottom</b>	Explanation of ‘distributed functions’ as an alternative to ‘localisation of function’ as a way of understanding the functioning of the cerebral cortex is <b>slightly limited</b> . The material is used in an <b>effective</b> manner and shows evidence of <b>appropriate selection and elaboration</b> .	<b>10-9</b>
<b>Band 2 Top</b>	Explanation of ‘distributed functions’ as an alternative to ‘localisation of function’ as a way of understanding the functioning of the cerebral cortex is <b>limited</b> . The material is used in a <b>reasonably effective</b> manner and shows <b>reasonable elaboration</b> .	<b>8-7</b>
<b>Band 2 Bottom</b>	Explanation of ‘distributed functions’ as an alternative to ‘localisation of function’ as a way of understanding the functioning of the cerebral cortex is <b>basic</b> . The material is used in a <b>restricted</b> manner and shows <b>some evidence of elaboration</b> .	<b>6-5</b>
<b>Band 1 Top</b>	Explanation of ‘distributed functions’ as an alternative to ‘localisation of function’ as a way of understanding the functioning of the cerebral cortex is <b>superficial and rudimentary</b> . The material is <b>not used effectively</b> and shows <b>no evidence of elaboration</b> .	<b>4-3</b>
<b>Band 1 Bottom</b>	Explanation of ‘distributed functions’ as an alternative to ‘localisation of function’ as a way of understanding the functioning of the cerebral cortex is <b>muddled and mainly irrelevant</b> . The material may be <b>wholly irrelevant</b> .	<b>2-0</b>

5

Total for this question: 24 marks

Outline and evaluate <b>two</b> theories relating to the functions of sleep.	(24 marks)
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**AO1**

There is no restriction on the types of theory that can be outlined. Candidates may choose one each from ecological and restoration accounts, or two theories from the same category. Some candidates may take a 'meta' view and outline ecological and restoration accounts as two coherent groups of theories. As long as this is explicit this approach is acceptable.

A problem candidates may have is in clearly distinguishing Meddis's approach, say, from some of Webb's work, or evolutionary approaches from ecological aspects. These areas are often presented together and material should be interpreted in the candidate's favour, as representing one or two separate approaches.

A further likely complication is that candidates often present research studies as *illustrating* theories. In this case they should be credited as AO1. Where they are used explicitly as AO2 (supporting or contradicting theories), then they should be credited as AO2.

Two theories of sleep are required. Candidates outlining only one are showing partial performance and can earn a maximum of 8 marks for AO1.

**AO2**

Evaluation of theories can be in several forms. Research studies (eg lifestyle, sleep deprivation) would be the most effective way, but explanatory value (eg explaining the persistence of sleep in aquatic mammals or high levels of REM in the newborn) is also relevant. Alternative theories may be introduced and can earn credit if used as part of sustained and effective commentary, but the focus must remain on the selected theories. Candidates are not required to explicitly compare their two theories, although this could be a very effective way of accessing AO2 marks.

Theories of the function of dreaming are clearly separated in the Specification. To earn marks they must be *explicitly and convincingly* linked to the functions of sleep. Even if linked, such answers are likely to be limited.

Similarly material on the nature of sleep can earn marks *only* if linked to the functions of sleep.

Candidates are required to evaluate two theories. Candidates evaluating only one are showing partial performance and can earn a maximum of 8 marks for AO2.

**AO1: Outline of two theories relating to the functions of sleep.**

<b>Band</b>	<b>Mark Allocation</b>	<b>Marks</b>
<b>Band 3 Top</b>	Outline of two theories relating to the functions of sleep is <b>substantial</b> . It is <b>accurate and well-detailed</b> . The organisation and structure of the answer are <b>coherent</b> , with a <b>reasonable balance</b> between the two theories.	<b>12-11</b>
<b>Band 3 Bottom</b>	Outline of two theories relating to the functions of sleep is <b>slightly limited</b> . It is <b>accurate and reasonably detailed</b> . The organisation and structure of the answer are <b>coherent</b> , with a <b>reasonable balance</b> between the two theories.	<b>10-9</b>
<b>Band 2 Top</b>	Outline of two theories relating to the functions of sleep is <b>limited</b> . It is <b>generally accurate and reasonably detailed</b> . The organisation and structure of the answer are <b>reasonably constructed</b> , though there may be an <b>imbalance</b> in coverage of the two theories. <i>Partial performance is substantial, accurate and well-detailed.</i>	<b>8-7</b>
<b>Band 2 Bottom</b>	Outline of two theories relating to the functions of sleep is <b>basic</b> . It is <b>generally accurate but lacks detail</b> . The organisation and structure of the answer are <b>reasonable</b> , though there may be an <b>imbalance</b> in coverage of the two theories. <i>Partial performance is limited, generally accurate and reasonably detailed.</i>	<b>6-5</b>
<b>Band 1 Top</b>	Outline of two theories relating to the functions of sleep is <b>rudimentary and sometimes flawed</b> . There is <b>some focus</b> on the question. The organisation and structure of the answer are <b>reasonable</b> , with <b>some coverage</b> of two theories. <i>Partial performance is basic, generally accurate and lacking detail.</i>	<b>4-3</b>
<b>Band 1 Bottom</b>	Outline of two theories relating to the functions of sleep is <b>just discernible and mainly irrelevant</b> . It is <b>weak and shows muddled</b> understanding. The answer may be <b>wholly irrelevant</b> . <i>Partial performance is rudimentary and sometimes flawed with little focus on the question.</i>	<b>2-0</b>

**AO2: Evaluation of two theories relating to the functions of sleep.**

<b>Band</b>	<b>Mark Allocation</b>	<b>Marks</b>
<b>Band 3 Top</b>	Evaluation of two theories relating to the functions of sleep is <b>thorough</b> . The material is used in a <b>highly effective</b> manner and shows evidence of <b>appropriate selection and coherent elaboration</b> .	<b>12-11</b>
<b>Band 3 Bottom</b>	Evaluation of two theories relating to the functions of sleep is <b>slightly limited</b> . The material is used in an <b>effective</b> manner and shows evidence of <b>appropriate selection and elaboration</b> .	<b>10-9</b>
<b>Band 2 Top</b>	Evaluation of two theories relating to the functions of sleep is <b>limited</b> . The material is used in a <b>reasonably effective</b> manner and shows <b>reasonable elaboration</b> . <i>Partial performance is thorough, highly effective and coherent (top of band) or slightly limited and effective (bottom of band).</i>	<b>8-7</b>
<b>Band 2 Bottom</b>	Evaluation of two theories relating to the functions of sleep is <b>basic</b> . The material is used in a <b>restricted</b> manner and shows <b>some evidence of elaboration</b> , with a fair balance in evaluation of the two theories. <i>Partial performance is limited and reasonably effective with reasonable elaboration.</i>	<b>6-5</b>
<b>Band 1 Top</b>	Evaluation of two theories relating to the functions of sleep is <b>superficial and rudimentary</b> . The material is <b>not used effectively</b> and shows <b>no evidence of elaboration</b> . <i>Partial performance is basic and restricted with some evidence of elaboration.</i>	<b>4-3</b>
<b>Band 1 Bottom</b>	Evaluation of two theories relating to the functions of sleep is <b>muddled and mainly irrelevant</b> . The material may be <b>wholly irrelevant</b> . <i>Partial performance is superficial and not used effectively with no evidence of elaboration.</i>	<b>2-0</b>

6

Total for this question: 24 marks

Outline and evaluate the role of brain structures (eg hypothalamus) in **one or more** motivational states (eg hunger, thirst). (24 marks)

**AO1**

Outline of the role of brain structures in motivational states is likely to focus on specific behaviours such as hunger, thirst, and sexual behaviour, and the role of structures such as hypothalamic nuclei and the limbic system, etc. ‘Structures’ can include neurotransmitter pathways and other aspects of brain neurophysiology. However the role of peripheral hormones and physiological markers such as glucose levels can only receive credit if described as part of brain-periphery interactive mechanisms. Candidates may choose to describe theories/approaches such as the dual centre model of feeding behaviour, as well as describing some of the many studies in this area. Theories/approaches are clearly relevant to the role of brain structures in motivational states. Research studies may be credited as AO1 if they are *illustrating* the involvement of a particular structure, or as AO2 if they are clearly *contextualised* as supporting/contradicting the involvement of a particular structure.

Although ‘motivation’ and ‘emotion’ have elements in common they are clearly separated in the Specification and any coverage of ‘emotion’ would need to be explicitly justified as ‘motivation’ (eg through reference to the arousing and directing of behaviour) to earn credit.

**AO2**

Involvement of brain structures in motivational states can be evaluated through the degree of support from research studies (see above), which in turn can be evaluated in terms of methodological, ethical, or other concerns. Comparison with alternative approaches to explaining motivation, such as those emphasising psychological factors, would also be creditable, although the focus must remain on brain structures.

Candidates are only required to discuss one motivational state, but are required to consider more than one brain structure. This can include, for instance, *two* hypothalamic nuclei or centres. However, if only one structure is discussed, candidates are showing partial performance and can receive a maximum of 8 marks for AO1 and 8 marks for AO2.

**AO1: Outline of the role of brain structures in one or more motivational states.**

<b>Band</b>	<b>Mark Allocation</b>	<b>Marks</b>
<b>Band 3 Top</b>	Outline of the role of brain structures in one or more motivational states is <b>substantial</b> . It is <b>accurate and well-detailed</b> . The organisation and structure of the answer are <b>coherent</b> , with <b>substantial evidence</b> of breadth and depth.	<b>12-11</b>
<b>Band 3 Bottom</b>	Outline of the role of brain structures in one or more motivational states is <b>slightly limited</b> . It is <b>accurate and reasonably detailed</b> . The organisation and structure of the answer are <b>coherent</b> , with <b>evidence</b> of breadth and depth.	<b>10-9</b>
<b>Band 2 Top</b>	Outline of the role of brain structures in one or more motivational states is <b>limited</b> . It is <b>generally accurate and reasonably detailed</b> . The organisation and structure of the answer are <b>reasonably constructed</b> , with <b>increasing evidence</b> of breadth and/or depth. <i>Partial performance is substantial, accurate and well-detailed.</i>	<b>8-7</b>
<b>Band 2 Bottom</b>	Outline of the role of brain structures in one or more motivational states is <b>basic</b> . It is <b>generally accurate but lacks detail</b> . The organisation and structure of the answer are <b>reasonable</b> , with <b>some evidence</b> of breadth and/or depth. <i>Partial performance is limited, generally accurate and reasonably detailed.</i>	<b>6-5</b>
<b>Band 1 Top</b>	Outline of the role of brain structures in one or more motivational states is <b>rudimentary and sometimes flawed</b> . There is <b>some focus</b> on the question. The organisation and structure of the answer are <b>reasonable</b> . <i>Partial performance is basic, generally accurate and lacking detail.</i>	<b>4-3</b>
<b>Band 1 Bottom</b>	Outline of the role of brain structures in one or more motivational states is <b>just discernible and mainly irrelevant</b> . It is <b>weak and shows muddled</b> understanding. The answer may be <b>wholly irrelevant</b> to the question's requirement. <i>Partial performance is rudimentary and sometimes flawed with little focus on the question.</i>	<b>2-0</b>

**AO2: Evaluation of research relating to the role of brain structures in motivational states.**

<b>Band</b>	<b>Mark Allocation</b>	<b>Marks</b>
<b>Band 3 Top</b>	Evaluation of the role of brain structures in one or more motivational states is <b>thorough</b> . The material is used in a <b>highly effective</b> manner and shows evidence of <b>appropriate selection and coherent elaboration</b> .	<b>12-11</b>
<b>Band 3 Bottom</b>	Evaluation of the role of brain structures in one or more motivational states is <b>slightly limited</b> . The material is used in an <b>effective</b> manner and shows evidence of <b>appropriate selection and elaboration</b> .	<b>10-9</b>
<b>Band 2 Top</b>	Evaluation of the role of brain structures in one or more motivational states is <b>limited</b> . The material is used in a <b>reasonably effective</b> manner and shows <b>reasonable elaboration</b> . <i>Partial performance is thorough, highly effective and coherent (top of band) or slightly limited and effective (bottom of band).</i>	<b>8-7</b>
<b>Band 2 Bottom</b>	Evaluation of the role of brain structures in one or more motivational states is <b>basic</b> . The material is used in a <b>restricted</b> manner and shows <b>some evidence of elaboration</b> . <i>Partial performance is limited and reasonably effective with reasonable elaboration.</i>	<b>6-5</b>
<b>Band 1 Top</b>	Evaluation of the role of brain structures in one or more motivational states is <b>superficial and rudimentary</b> . The material is <b>not used effectively</b> and shows <b>no evidence of elaboration</b> . <i>Partial performance is basic and restricted with some evidence of elaboration.</i>	<b>4-3</b>
<b>Band 1 Bottom</b>	Evaluation of the role of brain structures in one or more motivational states is <b>muddled and mainly irrelevant</b> . The material may be <b>wholly irrelevant</b> . <i>Partial performance is superficial and not used effectively with no evidence of elaboration.</i>	<b>2-0</b>

**SECTION C: COGNITIVE PSYCHOLOGY**

7

**Total for this question: 24 marks**

(a) Outline <b>one</b> early-selection model of selective attention (eg Broadbent, Treisman) and <b>one</b> late-selection model of selective attention (eg Deutsch & Deutsch). <span style="float: right;">(12 marks)</span>
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(b) Evaluate <b>one</b> of the models of selective attention that you have outlined in (a). <span style="float: right;">(12 marks)</span>
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**(a) AO1**

Examples of early selection models of selective attention given in the Specification are Broadbent's filter model and Treisman's attenuation model, while Deutsch & Deutsch are given as a late-selection model. Candidates must explicitly present models as either early or late-selection rather than simply outlining two models. If two models are clearly described and differentiated, but *mislabeled*, candidates should not be penalised. If it is completely unclear as to which type of model they are referring, no marks can be earned for AO1.

General descriptions of selective attention phenomena or studies, such as Cherry's cocktail party effect, can only receive AO1 or AO2 credit if placed in the context of early or late-selection models. It is also possible that some candidates may introduce models of divided attention such as Kahnemann's capacity model. These may earn marks if discussed in the context of the early or late selection/allocation of attentional resources.

Research studies may earn AO1 credit if clearly used to *illustrate* the principles behind a model. Otherwise they should be assessed under AO2 criteria.

Candidates are required to outline two relevant models. Those presenting only one are showing partial performance and can earn a maximum of 8 marks for AO1.

**(b) AO2**

Models are likely to be evaluated through the degree of research support. Studies and findings should be clearly *contextualised* as supporting/contradicting a model to earn AO2 marks; otherwise they may qualify for AO1 credit (see above). Alternatively, evaluation may be achieved through comparison with other models which may, for instance, provide a more convincing explanation of findings. The focus, however, must remain on the target model.

Under the exporting rule, material that is irrelevant and would earn no marks in one question part *but would* earn marks in the other question part, should be exported to that question part.



**AO1:** *Outline of one early-selection model of selective attention and one-late selection model of selective attention.*

<b>Band</b>	<b>Mark Allocation</b>	<b>Marks</b>
<b>Band 3 Top</b>	Outline of one early-selection model of selective attention and one-late selection model of selection attention is <b>substantial</b> . It is <b>accurate and well-detailed</b> . The organisation and structure of the answer are <b>coherent</b> , with a <b>reasonable balance</b> between the two models.	<b>12-11</b>
<b>Band 3 Bottom</b>	Outline of one early-selection model of selective attention and one late-selection model of selection attention is <b>slightly limited</b> . It is <b>accurate and reasonably detailed</b> . The organisation and structure of the answer are <b>coherent</b> , with a <b>reasonable balance</b> between the two models.	<b>10-9</b>
<b>Band 2 Top</b>	Outline of one early-selection model of selective attention and one late-selection model of selection attention is <b>limited</b> . It is <b>generally accurate and reasonably detailed</b> . The organisation and structure of the answer are <b>reasonably constructed</b> , though there may be an <b>imbalance</b> in coverage of the two models. <i>Partial performance is substantial, accurate and well-detailed (top of band) or slightly limited, accurate and reasonably detailed (bottom of band).</i>	<b>8-7</b>
<b>Band 2 Bottom</b>	Outline of one early-selection model of selective attention and one late-selection model of selection attention is <b>basic</b> . It is <b>generally accurate but lacks detail</b> . The organisation and structure of the answer are <b>reasonable</b> , though there may be an <b>imbalance</b> in coverage between the two models. <i>Partial performance is limited, generally accurate and reasonably detailed.</i>	<b>6-5</b>
<b>Band 1 Top</b>	Outline of one early-selection model of selective attention and one late-selection model of selection attention is <b>rudimentary and sometimes flawed</b> . There is <b>some focus</b> on the question. The organisation and structure of the answer are <b>reasonable</b> , with <b>some coverage</b> of two models. <i>Partial performance is basic, generally accurate and lacking detail.</i>	<b>4-3</b>
<b>Band 1 Bottom</b>	Outline of one early-selection model of selective attention and one late-selection model of selection attention is <b>just discernible and mainly irrelevant</b> . It is <b>weak and shows muddled</b> understanding. The answer may be <b>wholly irrelevant</b> . <i>Partial performance is rudimentary and sometimes flawed with little focus on the question.</i>	<b>2-0</b>

**AO2:** *Evaluation of one model of selective attention.*

<b>Band</b>	<b>Mark Allocation</b>	<b>Marks</b>
<b>Band 3 Top</b>	Evaluation of one model of selective attention is <b>thorough</b> . The material is used in a <b>highly effective</b> manner and shows evidence of <b>appropriate selection and coherent elaboration</b> .	<b>12-11</b>
<b>Band 3 Bottom</b>	Evaluation of one model of selective attention is <b>slightly limited</b> . The material is used in an <b>effective</b> manner and shows evidence of <b>appropriate selection and elaboration</b> .	<b>10-9</b>
<b>Band 2 Top</b>	Evaluation of one model of selective attention is <b>limited</b> . The material is used in a <b>reasonably effective</b> manner and shows <b>reasonable elaboration</b> .	<b>8-7</b>
<b>Band 2 Bottom</b>	Evaluation of one model of selective attention is <b>basic</b> . The material is used in a <b>restricted</b> manner and shows <b>some evidence of elaboration</b> .	<b>6-5</b>
<b>Band 1 Top</b>	Evaluation of one model of selective attention is <b>superficial and rudimentary</b> . The material is <b>not used effectively</b> and shows <b>no evidence of elaboration</b> .	<b>4-3</b>
<b>Band 1 Bottom</b>	Evaluation of one model of selective attention is <b>muddled and mainly irrelevant</b> . The material may be <b>wholly irrelevant</b> .	<b>2-0</b>

8

**Total for this question: 24 marks**

(a) Outline the structure and functions of the visual system.	(12 marks)
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(b) Explain <b>one or more</b> aspects of visual information processing (eg sensory adaptation, the processing of contrast, colour, features).	(12 marks)
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**(a) AO1**

AO1 material for this question could consist most straightforwardly of an outline of the eye, retina, visual receptors, visual pathways, visual cortex etc, and their role in visual functions. There need not be a perfect balance between *structure* and *function* but answers describing only structural aspects can receive a maximum of 8 marks. Functional aspects could include focusing of light on the retina, sensory transduction by rods and cones, separate pathways for colour and form perception, the basics of colour perception, cortical modules for orientation, ocular dominance etc.

There may be a breadth/depth trade off as candidates may provide more depth and detail by considering eg visual cortical structure/functions, than by reviewing the whole of the visual system.

**(b) AO2**

Aspects of visual information processing have been studied and explained using a variety of approaches, such as case studies on brain-damaged humans, single unit recording techniques (eg Hubel and Wiesel), or parallel processing explanations for visual phenomena such as agnosias (eg problems with the perception of form, faces, motion, and colour). Evaluation can include the *contribution* of studies to our understanding of aspects of visual information processing, as well as criticisms of the studies themselves, many of which have been on non-human animals. Evaluation of explanations could include how effectively they explain visual experience eg can parallel processing account for visual constancies and the apparent integration of our visual world?

Outline of the functions of the visual system in (a) could overlap with an *explanation* of aspects of visual information processing. Alternatively studies described in (b) may not be used effectively and not qualify for AO2 credit but may *illustrate* structure and/or functions of the visual system. Generally, material should be credited where it appears *unless* it qualifies under the exporting rule (see Question 4).

**AO1:** Outline of the structure and functions of the visual system.

<b>Band</b>	<b>Mark Allocation</b>	<b>Marks</b>
<b>Band 3 Top</b>	Outline of the structure and functions of the visual system is <b>substantial</b> . It is <b>accurate and well-detailed</b> . The organisation and structure of the answer are <b>coherent</b> , with <b>substantial evidence</b> of breadth and depth.	<b>12-11</b>
<b>Band 3 Bottom</b>	Outline of the structure and functions of the visual system is <b>slightly limited</b> . It is <b>accurate and reasonably detailed</b> . The organisation and structure of the answer are <b>coherent</b> , with <b>evidence</b> of breadth and depth.	<b>10-9</b>
<b>Band 2 Top</b>	Outline of the structure and functions of the visual system is <b>limited</b> . It is <b>generally accurate and reasonably detailed</b> . The organisation and structure of the answer are <b>reasonably constructed</b> , with <b>increasing evidence</b> of breadth and/or depth.	<b>8-7</b>
<b>Band 2 Bottom</b>	Outline of the structure and functions of the visual system is <b>basic</b> . It is <b>generally accurate but lacks detail</b> . The organisation and structure of the answer are <b>reasonable</b> , with <b>some evidence</b> of breadth and/or depth.	<b>6-5</b>
<b>Band 1 Top</b>	Outline of the structure and functions of the visual system is <b>rudimentary and sometimes flawed</b> . There is <b>some focus</b> on the question. The organisation and structure of the answer are <b>reasonable</b> .	<b>4-3</b>
<b>Band 1 Bottom</b>	Outline of the structure and functions of the visual system is <b>just discernible</b> . It is <b>weak and shows muddled</b> understanding. The answer may be <b>wholly or mainly irrelevant</b> .	<b>2-0</b>

**AO2:** *Explanation of one or more aspects of visual information processing.*

<b>Band</b>	<b>Mark Allocation</b>	<b>Marks</b>
<b>Band 3 Top</b>	Explanation of one or more aspects of visual information processing is <b>thorough</b> . The material is used in a <b>highly effective</b> manner and shows evidence of <b>appropriate selection and coherent elaboration</b> .	<b>12-11</b>
<b>Band 3 Bottom</b>	Explanation of one or more aspects of visual information processing is <b>slightly limited</b> . The material is used in an <b>effective</b> manner and shows evidence of <b>appropriate selection and elaboration</b> .	<b>10-9</b>
<b>Band 2 Top</b>	Explanation of one or more aspects of visual information processing is <b>limited</b> . The material is used in a <b>reasonably effective</b> manner and shows <b>reasonable elaboration</b> .	<b>8-7</b>
<b>Band 2 Bottom</b>	Explanation of one or more aspects of visual information processing is <b>basic</b> . The material is used in a <b>restricted</b> manner and shows <b>some evidence of elaboration</b> .	<b>6-5</b>
<b>Band 1 Top</b>	Explanation of one or more aspects of visual information processing is <b>superficial and rudimentary</b> . The material is <b>not used effectively</b> and shows <b>no evidence of elaboration</b> .	<b>4-3</b>
<b>Band 1 Bottom</b>	Explanation of one or more aspects of visual information processing is <b>muddled and mainly irrelevant</b> . The material may be <b>wholly irrelevant</b> .	<b>2-0</b>

9

Total for this question: 24 marks

(a) Outline the linguistic relativity hypothesis.	(6 marks)
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(b) Outline and evaluate research relating to the linguistic relativity hypothesis.	(18 marks)
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**(a) AO1**

Whorf's linguistic relativity hypothesis in its simplest form states that language determines or at least has a considerable influence on thought. Candidates are likely to elaborate on this basic description in two ways, either of which is acceptable. They may use examples to illustrate cross-cultural differences in languages (eg Eskimo/Inuit, Thai, Arabic) and their potential influence on thought. Alternatively they may focus on variations on Whorf's original ideas ie strong, weak, weaker hypotheses, or direct modifications of the Whorfian hypothesis.

**(b) AO1**

The term 'research' applies to both studies and theories. Candidates may therefore outline theories/hypotheses relating to linguistic relativity eg the strong/weak variations etc, or refer to relevant cross-cultural studies of language and cognition.

There is scope for overlap between (a) and (b) in terms of AO1 material. As long as material is not double credited it should be credited where it stands unless the exporting rule can be applied.

However, candidates are likely to focus on the many studies on the relationships between language and perception, memory etc. Linguistic relativity is also closely related to social and cultural aspects of language use and the work of Bernstein and Labov. As long as the work of the latter is considered in the context of thought or perception (and not simply as affecting language *structure*) it would be acceptable for either AO1 or AO2 marks. However the focus of the question is on the linguistic relativity hypothesis, and *general* essays on social/cultural aspects of language use are unlikely to move out of Band 1 for AO1 and AO2.

**(b) AO2**

A likely source of evaluation will be findings from research studies supporting or contradicting the LR hypothesis, although care must be taken not to double credit studies under both AO1 and AO2. In addition candidates may place the LR hypothesis in the context of broad approaches to the relationship between language and thought ('strong', 'weak' etc). Although unlikely, the work of Vygotsky and Piaget on the role of language in social and cognitive development may be introduced. Insofar as this is related directly to the linguistic relativity/language and thought debate, AO1 or AO2 credit may be earned.

As the term 'research' is used in the question, evaluation of studies themselves is acceptable as AO2 material.

**(a) AO1:** *Outline of the linguistic relativity hypothesis.*

Band	Mark Allocation	Marks
<b>Band 3 Top</b>	Outline of the relativity hypothesis is <b>substantial</b> . It is <b>accurate and well-detailed</b> . The organisation and structure of the answer are <b>coherent</b> .	<b>6</b>
<b>Band 3 Bottom</b>	Outline of the relativity hypothesis is <b>slightly limited</b> . It is <b>accurate and reasonably detailed</b> . The organisation and structure of the answer are <b>coherent</b> .	<b>5</b>
<b>Band 2 Top</b>	Outline of the relativity hypothesis is <b>limited</b> . It is <b>generally accurate and reasonably detailed</b> . The organisation and structure of the answer are <b>reasonably constructed</b> .	<b>4</b>
<b>Band 2 Bottom</b>	Outline of the relativity hypothesis is <b>basic</b> . It is <b>generally accurate but lacks detail</b> . The organisation and structure of the answer are <b>reasonable</b> .	<b>3</b>
<b>Band 1 Top</b>	Outline of the relativity hypothesis is <b>rudimentary and sometimes flawed</b> . There is <b>some focus</b> on the question. The organisation and structure of the answer are <b>reasonable</b> .	<b>2</b>
<b>Band 1 Bottom</b>	Outline of the relativity hypothesis is <b>just discernible and mainly irrelevant</b> . It is <b>weak and shows muddled</b> understanding. The answer may be <b>wholly irrelevant</b> .	<b>0-1</b>

**(b) AO1:** *Outline of research relating to the linguistic relativity hypothesis.*

Band	Mark Allocation	Marks
<b>Band 3 Top</b>	Outline of research relating to the relativity hypothesis is <b>substantial</b> . It is <b>accurate and well-detailed</b> . The organisation and structure of the answer are <b>coherent</b> .	<b>6</b>
<b>Band 3 Bottom</b>	Outline of research relating to the relativity hypothesis is <b>slightly limited</b> . It is <b>accurate and reasonably detailed</b> . The organisation and structure of the answer are <b>coherent</b> .	<b>5</b>
<b>Band 2 Top</b>	Outline of research relating to the relativity hypothesis is <b>limited</b> . It is <b>generally accurate and reasonably detailed</b> . The organisation and structure of the answer are <b>reasonably constructed</b> .	<b>4</b>
<b>Band 2 Bottom</b>	Outline of research relating to the relativity hypothesis is <b>basic</b> . It is <b>generally accurate but lacks detail</b> . The organisation and structure of the answer are <b>reasonable</b> .	<b>3</b>
<b>Band 1 Top</b>	Outline of research relating to the relativity hypothesis is <b>rudimentary and sometimes flawed</b> . There is <b>some focus</b> on the question. The organisation and structure of the answer are <b>reasonable</b> .	<b>2</b>
<b>Band 1 Bottom</b>	Outline of research relating to the relativity hypothesis is <b>just discernible and mainly irrelevant</b> . It is <b>weak and shows muddled</b> understanding. The answer may be <b>wholly irrelevant</b> .	<b>0-1</b>

**(b) AO2:** *Evaluation of research relating to the linguistic relativity hypothesis.*

Band	Mark Allocation	Marks
<b>Band 3 Top</b>	Evaluation of research relating to the linguistic relativity hypothesis is <b>thorough</b> . The material is used in a <b>highly effective</b> manner and shows evidence of <b>appropriate selection and coherent elaboration</b> .	<b>12-11</b>
<b>Band 3 Bottom</b>	Evaluation of research relating to the linguistic relativity hypothesis is <b>slightly limited</b> . The material is used in an <b>effective</b> manner and shows evidence of <b>appropriate selection and elaboration</b> .	<b>10-9</b>
<b>Band 2 Top</b>	Evaluation of research relating to the linguistic relativity hypothesis is <b>limited</b> . The material is used in a <b>reasonably effective</b> manner and shows <b>reasonable elaboration</b> .	<b>8-7</b>
<b>Band 2 Bottom</b>	Evaluation of research relating to the linguistic relativity hypothesis is <b>basic</b> . The material is used in a <b>restricted</b> manner and shows <b>some evidence of elaboration</b> .	<b>6-5</b>
<b>Band 1 Top</b>	Evaluation of research relating to the linguistic relativity hypothesis is <b>superficial and rudimentary</b> . The material is <b>not used effectively</b> and shows <b>no evidence of elaboration</b> .	<b>4-3</b>
<b>Band 1 Bottom</b>	Evaluation of research relating to the linguistic relativity hypothesis is <b>muddled and mainly irrelevant</b> . The material may be <b>wholly irrelevant</b> .	<b>2-0</b>

**SECTION D: DEVELOPMENTAL PSYCHOLOGY**

**10**

**Total for this question: 24 marks**

Describe Piaget's theory of cognitive development and evaluate it in terms of its applications (eg to education). (24 marks)

**AO1**

This is an extremely straightforward question where the main variation will be in the breadth and detail of the answers. Band 3 answers should make reference to underlying mechanisms such as schema, assimilation, and accommodation. Description of the stages of cognitive development will vary in detail and accuracy. Piaget's classic studies are likely to be described and can gain AO1 credit as *illustrating* and *enhancing* aspects of his theory such as egocentrism and conservation.

Evaluating the theory in terms of its applications necessarily involves *describing* applications such as 'readiness' and 'discovery learning' in education. However, such material would be eligible for AO2 marks as part of a relevant commentary and evaluation.

**AO2**

Candidates are likely to focus on education. Applications of Piaget's theory to education include concepts such as 'readiness' and 'discovery learning'. To earn AO2 credit there would need to be commentary and elaboration relating such concepts to the theory eg assimilation/accommodation, the developmental stages and mental operations at each level. There is no *requirement* for candidates to *evaluate* the applications as such, but such evaluation, perhaps through reference to research studies of their effectiveness (or not) would earn AO2 marks. Comparison with alternative approaches, such as Vygotskian ideas of scaffolding or zones of proximal development, would also access AO2 marks; the focus of the question, though, should remain on Piaget's theory. Equally relevant would be an assessment of the role of the teacher according to Piaget's approach.

Candidates who simply describe applications without commentary or evaluation can earn a maximum of 6 marks for AO2.

If applications outside of education are discussed they should be assessed on their merits.

Candidates may present some of the standard criticisms of Piaget's theory, using later studies to contradict his findings. This is not *directly* relevant to this particular question on applications, and will not earn AO2 marks *unless* an explicit link is made to eg education. If no such links are made, general criticisms of Piaget's work can earn a maximum AO2 mark at the top of Band 1.

**AO1: Description of Piaget's theory of cognitive development.**

Band	Mark Allocation	Marks
<b>Band 3 Top</b>	Description of Piaget's theory of cognitive development is <b>substantial</b> . It is <b>accurate and well-detailed</b> . The organisation and structure of the answer are <b>coherent</b> , with <b>substantial evidence</b> of breadth and depth.	<b>12-11</b>
<b>Band 3 Bottom</b>	Description of Piaget's theory of cognitive development is <b>slightly limited</b> . It is <b>accurate and reasonably detailed</b> . The organisation and structure of the answer are <b>coherent</b> , with <b>evidence</b> of breadth and depth.	<b>10-9</b>
<b>Band 2 Top</b>	Description of Piaget's theory of cognitive development is <b>limited</b> . It is <b>generally accurate and reasonably detailed</b> . The organisation and structure of the answer are <b>reasonably constructed</b> , with <b>increasing evidence</b> of breadth and/or depth.	<b>8-7</b>
<b>Band 2 Bottom</b>	Description of Piaget's theory of cognitive development and its applications is <b>basic</b> . It is <b>generally accurate but lacks detail</b> . The organisation and structure of the answer are <b>reasonable</b> , with <b>some evidence</b> of breadth and/or depth.	<b>6-5</b>
<b>Band 1 Top</b>	Description of Piaget's theory of cognitive development is <b>rudimentary and sometimes flawed</b> . There is <b>some focus</b> on the question. The organisation and structure of the answer are <b>reasonable</b> .	<b>4-3</b>
<b>Band 1 Bottom</b>	Description of Piaget's theory of cognitive development is <b>just discernible and mainly irrelevant</b> . It is <b>weak and shows muddled</b> understanding. The answer may be <b>wholly irrelevant</b> .	<b>2-0</b>

**AO2: Evaluation of Piaget's theory of cognitive development in terms of its applications.**

Band	Mark Allocation	Marks
<b>Band 3 Top</b>	Evaluation of Piaget's theory in terms of its applications is <b>thorough</b> . The material is used in a <b>highly effective</b> manner and shows evidence of <b>appropriate selection and coherent elaboration</b> .	<b>12-11</b>
<b>Band 3 Bottom</b>	Evaluation of Piaget's theory in terms of its applications is <b>slightly limited</b> . The material is used in an <b>effective</b> manner and shows evidence of <b>appropriate selection and elaboration</b> .	<b>10-9</b>
<b>Band 2 Top</b>	Evaluation of Piaget's theory in terms of its applications is <b>limited</b> . The material is used in a <b>reasonably effective</b> manner and shows <b>reasonable elaboration</b> .	<b>8-7</b>
<b>Band 2 Bottom</b>	Evaluation of Piaget's theory in terms of its applications is <b>basic</b> . The material is used in a <b>restricted</b> manner and shows <b>some evidence of elaboration</b> .	<b>6-5</b>
<b>Band 1 Top</b>	Evaluation of Piaget's theory in terms of its applications is <b>superficial and rudimentary</b> . The material is <b>not used effectively</b> and shows <b>no evidence of elaboration</b> .	<b>4-3</b>
<b>Band 1 Bottom</b>	Evaluation of Piaget's theory in terms of its applications is <b>muddled and mainly irrelevant</b> . The material may be <b>wholly irrelevant</b> .	<b>2-0</b>

11

**Total for this question: 24 marks**

Outline and evaluate **two or more** explanations of the development of gender identity **and/or** gender roles. *(24 marks)*

**AO1**

There are various explanations for the development of gender identity/gender roles, such as social learning theory, psychoanalytic theory, and cognitive-developmental approaches. Although some may be more concerned with gender role than with gender identity this subtle distinction has now disappeared from the Specification and either aspect is acceptable. To receive marks across the scale candidates do *not* have to specify which aspects a particular explanation is dealing with.

Other developmental areas such as moral development are unlikely to be relevant unless there is a specific focus on implications for gender roles/identity. Equally, a *general* consideration of eg social learning or Freudian approaches that does not focus on gender roles/identity cannot move beyond Band 1. Biological models of gender development are not excluded but again roles and identity need to be addressed rather than general differences in, for instance, cognitive abilities.

Research studies may be used to *illustrate* and *enhance* a particular explanation, and this would be acceptable for AO1 marks.

*Two or more* explanations are required. Candidates covering more than two are likely to show some breadth/depth trade off.

**AO2**

Evaluation of explanations may be based on research support, although research studies should not be double credited (see above). The studies themselves may be evaluated in terms of validity and cultural specificity. Alternatively explanations can be considered in the light of how well they explain general features of gender roles/identity such as the developmental trajectory and perhaps changes in gender roles/identity over time.

Alternative explanations can be used to evaluate a target explanation but can gain marks only if used as part of effective commentary rather than simply described.

Candidates are required to consider *two or more* explanations. Those presenting only *one* are showing partial performance and can earn a maximum of 8 marks for AO1 and 8 marks for AO2.



**AO1:** *Outline of two or more explanations of the development of gender identity and/or gender roles.*

<b>Band</b>	<b>Mark Allocation</b>	<b>Marks</b>
<b>Band 3 Top</b>	Outline of two or more explanations of the development of gender identity/gender roles is <b>substantial</b> . It is <b>accurate and well-detailed</b> . The organisation and structure of the answer are <b>coherent</b> , with a <b>reasonable</b> balance between the explanations.	<b>12-11</b>
<b>Band 3 Bottom</b>	Outline of two or more explanations of the development of gender identity/gender roles is <b>slightly limited</b> . It is <b>accurate and reasonably detailed</b> . The organisation and structure of the answer are <b>coherent</b> , with a <b>reasonable</b> balance between the explanations.	<b>10-9</b>
<b>Band 2 Top</b>	Outline of two or more explanations of the development of gender identity/gender roles is <b>limited</b> . It is <b>generally accurate and reasonably detailed</b> . The organisation and structure of the answer are <b>reasonably constructed</b> , though there may be an <b>imbalance</b> in coverage of the explanations. <i>Partial performance is substantial, accurate and well-detailed (top of band) or slightly limited, accurate and reasonably detailed (bottom of band).</i>	<b>8-7</b>
<b>Band 2 Bottom</b>	Outline of two or more explanations of the development of gender identity/gender roles is <b>basic</b> . It is <b>generally accurate but lacks detail</b> . The organisation and structure of the answer are reasonable, though there may be an <b>imbalance</b> in coverage between the explanations. <i>Partial performance is limited, generally accurate and reasonably detailed.</i>	<b>6-5</b>
<b>Band 1 Top</b>	Outline of two or more explanations of the development of gender identity/gender roles is <b>rudimentary and sometimes flawed</b> . There is <b>some focus</b> on the question. The organisation and structure of the answer are <b>reasonable</b> , with <b>some coverage</b> of at least two explanations. <i>Partial performance is basic, generally accurate but lacking detail.</i>	<b>4-3</b>
<b>Band 1 Bottom</b>	Outline of two or more explanations of the development of gender identity/gender roles is <b>just discernible and mainly irrelevant</b> . It is <b>weak and shows muddled</b> understanding. The answer may be <b>wholly irrelevant</b> to the question's requirement. <i>Partial performance is rudimentary and sometimes flawed with little focus on the question.</i>	<b>2-0</b>

**AO2:** *Evaluation of two or more explanations of the development of gender identity and/or gender roles.*

<b>Band</b>	<b>Mark Allocation</b>	<b>Marks</b>
<b>Band 3 Top</b>	Evaluation of two or more explanations of the development of gender identity/gender roles is <b>thorough</b> . The material is used in a <b>highly effective</b> manner and shows evidence of <b>appropriate selection and coherent elaboration</b> .	<b>12-11</b>
<b>Band 3 Bottom</b>	Evaluation of two or more explanations of the development of gender identity/gender roles is <b>slightly limited</b> . The material is used in an <b>effective</b> manner and shows evidence of <b>appropriate selection and elaboration</b> .	<b>10-9</b>
<b>Band 2 Top</b>	Evaluation of two or more explanations of the development of gender identity/gender roles is <b>limited</b> . The material is used in a <b>reasonably effective</b> manner and shows <b>reasonable elaboration</b> . <i>Partial performance is thorough, highly effective and coherent (top of band) or slightly limited and effective (bottom of band).</i>	<b>8-7</b>
<b>Band 2 Bottom</b>	Evaluation of two or more explanations of the development of gender identity/gender roles is <b>basic</b> . The material is used in a <b>restricted</b> manner and shows <b>some evidence of elaboration</b> . <i>Partial performance is limited and reasonably effective with reasonable elaboration.</i>	<b>6-5</b>
<b>Band 1 Top</b>	Evaluation of two or more explanations of the development of gender identity/gender roles is <b>superficial and rudimentary</b> . The material is <b>not used effectively</b> and shows <b>no evidence of elaboration</b> . <i>Partial performance is basic and restricted with some evidence of elaboration.</i>	<b>4-3</b>
<b>Band 1 Bottom</b>	Evaluation of two or more explanations of the development of gender identity/gender roles is <b>muddled and irrelevant</b> . The material may be <b>wholly irrelevant</b> . <i>Partial performance is superficial and not used effectively with no evidence of elaboration.</i>	<b>2-0</b>

12

Total for this question: 24 marks

Discuss research into the effects on the individual of **one or more** of the following:

- marriage
- divorce
- parenthood.

(24 marks)

### AO1

‘Research’ refers to both theory/models and studies. Marriage, divorce, and parenthood can all be approached broadly in terms of their impact on, mental health, stress, well-being and happiness, changes in role, social support and relationships, or in terms of the differential impact on men and women or people from different cultural backgrounds or different members of the family/community. Much systematic work has been done in these areas and can qualify for AO1 or AO2 marks depending on how it is used.

More general accounts of social/cultural differences in marriage conventions, divorce statistics etc which do not describe the effect of these on the individual or on groups to which they belong can earn a maximum of 4 marks.

Anecdotal material is likely to be presented, and in this area it can contain relevant points. Such material, though, will lack detail, and is therefore limited to 6 marks for AO1 and/or AO2.

AO1 material could consist of research studies/findings, or of theoretical perspectives on the impact of marriage, divorce, and parenthood on the individual.

### AO2

Evaluation of research into the effects of marriage, divorce and parenthood on the individual can be at the level of individual studies. For instance, methodological issues may include cultural specificity or a focus on ‘standard’ relationships and ignoring understudied relationships. The mediating factors such as gender, cultural, social context or time/era changes would be creditworthy. Further points could include the implications of changes in adult relationships over time, for instance the changing roles (or not) of males and females in relation to work and parenting, the impact on individuals and families of increasing divorce rate, or the maintenance of culturally-specific patterns of relationships in immigrant communities.

It is possible that candidates may introduce material from other parts of the specification, in particular Relationships, or perhaps stress and life events. Such material should be assessed in terms of AO1 and AO2 insofar as it is shaped and relevant to the question.

For candidates covering two or three of marriage, divorce and parenthood there may be depth/breadth trade-offs for both AO1 and AO2.

Evaluation of general accounts of, eg social/cultural differences, can earn a maximum of 4 marks.

**AO1:** *Description of research into the effects on the individual of one or more of the following: marriage, divorce and parenthood.*

Band	Mark Allocation	Marks
<b>Band 3 Top</b>	Description of research into the effects on the individual of one or more of the following: marriage, divorce and parenthood is <b>substantial</b> . It is <b>accurate and well-detailed</b> . The organisation and structure of the answer are <b>coherent</b> , with <b>substantial</b> evidence of breadth and depth.	<b>12-11</b>
<b>Band 3 Bottom</b>	Description of research into the effects on the individual of one or more of the following: marriage, divorce and parenthood is <b>slightly limited</b> . It is <b>accurate and reasonably detailed</b> . The organisation and structure of the answer are <b>coherent</b> , with <b>evidence</b> of breadth and depth.	<b>10-9</b>
<b>Band 2 Top</b>	Description of research into the effects on the individual of one or more of the following: marriage, divorce and parenthood is <b>limited</b> . It is <b>generally accurate and reasonably detailed</b> . The organisation and structure of the answer are <b>reasonably constructed</b> , with <b>increasing evidence</b> of breadth and/or depth.	<b>8-7</b>
<b>Band 2 Bottom</b>	Description of research into the effects on the individual of one or more of the following: marriage, divorce and parenthood is <b>basic</b> . It is <b>generally accurate but lacks detail</b> . The organisation and structure of the answer are <b>reasonable</b> , with <b>some evidence</b> of breadth and/or depth.	<b>6-5</b>
<b>Band 1 Top</b>	Description of research into the effects on the individual of one or more of the following: marriage, divorce and parenthood is <b>rudimentary and sometimes flawed</b> . There is <b>some focus</b> on the question. The organisation and structure of the answer are <b>reasonable</b> .	<b>4-3</b>
<b>Band 1 Bottom</b>	Description of research into the effects on the individual of one or more of the following: marriage, divorce and parenthood is <b>just discernible and mainly irrelevant</b> . It is <b>weak and shows muddled</b> understanding. The answer may be <b>wholly irrelevant</b> .	<b>2-0</b>

**AO2:** *Evaluation of research into the effects on the individual of one or more of the following: marriage, divorce and parenthood.*

Band	Mark Allocation	Marks
<b>Band 3 Top</b>	Evaluation of research into the effects on the individual of one or more of the following: marriage, divorce and parenthood is <b>thorough</b> . The material is used in a <b>highly effective</b> manner and shows evidence of <b>appropriate selection and coherent elaboration</b> .	<b>12-11</b>
<b>Band 3 Bottom</b>	Evaluation of research into the effects on the individual of one or more of the following: marriage, divorce and parenthood is <b>slightly limited</b> . The material is used in an <b>effective</b> manner and shows evidence of <b>appropriate selection and elaboration</b> .	<b>10-9</b>
<b>Band 2 Top</b>	Evaluation of research into the effects on the individual of one or more of the following: marriage, divorce and parenthood is <b>limited</b> . The material is used in a <b>reasonably effective</b> manner and shows <b>reasonable elaboration</b> .	<b>8-7</b>
<b>Band 2 Bottom</b>	Evaluation of research into the effects on the individual of one or more of the following: marriage, divorce and parenthood is <b>basic</b> . The material is used in a <b>restricted</b> manner and shows <b>some evidence of elaboration</b> .	<b>6-5</b>
<b>Band 1 Top</b>	Evaluation of research into the effects on the individual of one or more of the following: marriage, divorce and parenthood is <b>superficial and rudimentary</b> . The material is <b>not used effectively</b> and shows <b>no evidence of elaboration</b> .	<b>4-3</b>
<b>Band 1 Bottom</b>	Evaluation of research into the effects on the individual of one or more of the following: marriage, divorce and parenthood is <b>muddled and mainly irrelevant</b> . The material may be <b>wholly irrelevant</b> .	<b>2-0</b>

**SECTION E: COMPARATIVE PSYCHOLOGY**

**13**

**Total for this question: 24 marks**

Discuss the role of social learning in the behaviour of non-human animals.

(24 marks)

**AO1**

Social learning in non-human animals covers predominantly three overlapping areas. ‘Imitation’ of specific responses or behaviours has been demonstrated in many species. ‘Teaching’ of behaviours to infants by adults, a more interventionist form of imitation, is more controversial but again many studies claim to have demonstrated it. Finally ‘foraging’ behaviour seems to involve the transmission of food preferences from one animal to another. Candidates are likely to choose examples from these areas to illustrate the role of social learning and are not required to distinguish between them in terms of ‘types’ of social learning.

Other possibilities include the ‘learning’ or ‘cultural transmission’ of species-specific calls, while studies of primate behaviours increasingly seem to be demonstrating complex social learning, but as with all examples the *social learning* aspect must be explicit for marks to be earned.

**AO2**

Evaluation of the role of social learning can include alternative explanations of observed behaviours. ‘Imitation’, for instance, has always been controversial, with enhanced attention being a confounding factor in most studies. General commentary could include different types of social learning, or the relative significance of social learning for a particular species, in comparison with either more innate behaviours/fixed action patterns, or with simple learning through operant and classical conditioning. A further point is the increasing importance of social learning in more complex animals. Some mention of social learning in humans might earn some AO2 credit here, but the question refers to non-human animals and these must be the focus of the answer.

Studies may be used as either AO1 or AO2. If used to *illustrate* the role of social learning in the behaviour of non-human animals they should be credited as AO1. If they are used *explicitly* as evaluation of the possible role of social learning then they should be credited as AO2.

**AO1:** *Description of the role of social learning in the behaviour of non-human animals.*

<b>Band</b>	<b>Mark Allocation</b>	<b>Marks</b>
<b>Band 3 Top</b>	Description of the role of social learning in the behaviour of non-human animals is <b>substantial</b> . It is <b>accurate and well-detailed</b> . The organisation and structure of the answer are <b>coherent</b> , with <b>substantial</b> evidence of breadth and depth.	<b>12-11</b>
<b>Band 3 Bottom</b>	Description of the role of social learning in the behaviour of non-human animals is <b>slightly limited</b> . It is <b>accurate and reasonably detailed</b> . The organisation and structure of the answer are <b>coherent</b> , with <b>evidence</b> of breadth and depth.	<b>10-9</b>
<b>Band 2 Top</b>	Description of the role of social learning in the behaviour of non-human animals is <b>limited</b> . It is <b>generally accurate and reasonably detailed</b> . The organisation and structure of the answer are <b>reasonably constructed</b> , with <b>increasing evidence</b> of breadth and/or depth.	<b>8-7</b>
<b>Band 2 Bottom</b>	Description of the role of social learning in the behaviour of non-human animals is <b>basic</b> . It is <b>generally accurate but lacks detail</b> . The organisation and structure of the answer are <b>reasonable</b> , with <b>some evidence</b> of breadth and/or depth.	<b>6-5</b>
<b>Band 1 Top</b>	Description of the role of social learning in the behaviour of non-human animals is <b>rudimentary and sometimes flawed</b> . There is <b>some focus</b> on the question. The organisation and structure of the answer are <b>reasonable</b> .	<b>4-3</b>
<b>Band 1 Bottom</b>	Description of the role of social learning in the behaviour of non-human animals is <b>just discernible and mainly irrelevant</b> . It is <b>weak and shows muddled</b> understanding. The answer may be <b>wholly irrelevant</b> .	<b>2-0</b>

**AO2:** *Evaluation of the role of social learning in the behaviour of non-human animals.*

<b>Band</b>	<b>Mark Allocation</b>	<b>Marks</b>
<b>Band 3 Top</b>	Evaluation of the role of social learning in the behaviour of non-human animals is <b>thorough</b> . The material is used in a <b>highly effective</b> manner and shows evidence of <b>appropriate selection and coherent elaboration</b> .	<b>12-11</b>
<b>Band 3 Bottom</b>	Evaluation of the role of social learning in the behaviour of non-human animals is <b>slightly limited</b> . The material is used in an <b>effective</b> manner and shows evidence of <b>appropriate selection and elaboration</b> .	<b>10-9</b>
<b>Band 2 Top</b>	Evaluation of the role of social learning in the behaviour of non-human animals is <b>limited</b> . The material is used in a <b>reasonably effective</b> manner and shows <b>reasonable elaboration</b> .	<b>8-7</b>
<b>Band 2 Bottom</b>	Evaluation of the role of social learning in the behaviour of non-human animals is <b>basic</b> . The material is used in a <b>restricted</b> manner and shows <b>some evidence of elaboration</b> .	<b>6-5</b>
<b>Band 1 Top</b>	Evaluation of the role of social learning in the behaviour of non-human animals is <b>superficial and rudimentary</b> . The material is <b>not used effectively</b> and shows <b>no evidence of elaboration</b> .	<b>4-3</b>
<b>Band 1 Bottom</b>	Evaluation of the role of social learning in the behaviour of non-human animals is <b>muddled and mainly irrelevant</b> . The material may be <b>wholly irrelevant</b> .	<b>2-0</b>

14

Total for this question: 24 marks

Critically consider explanations of animal navigation.
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(24 marks)
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**AO1**

There are a variety of explanations of animal navigation, including genetic factors, use of landmarks, cognitive spatial mapping, geomagnetic fields, position of sun and stars, olfactory cues, observational learning etc. Navigation can include return to home sites after foraging, migration over longer distances, or homing studies in racing pigeons. AO1 marks can therefore be earned through a description of the use of some of these systems using appropriate examples. Research studies are likely to be used to *illustrate* explanations, in which case they qualify for AO1 marks. If used *explicitly* to support or modify explanations they should be credited under AO2 criteria.

Most animal behaviour involves navigation of some sort. As long as the focus is on the route-finding navigation aspect, examples should be judged on their merits.

**AO2**

Evaluation can take the form of research findings supporting or challenging assumptions of various explanations, although findings need to be presented explicitly as evaluation to earn AO2 marks. Recently candidates have been presenting material on the development of brain structures such as the hippocampus as underlying spatial navigation, and this would qualify as AO2 commentary. More general commentary could include the possible combined use of multiple cues and systems, different explanations applying to different species and to different conditions etc.

At least two explanations are required, and candidates presenting only one are showing partial performance and will be limited to a maximum mark of 8 for AO1 and AO2. However the 'explanations' criterion can be satisfied either by considering two or more different *explanations* (eg navigation through spatial mapping or olfactory cues), or by considering explanations for navigation in at least two different *species* (eg homing in pigeons and in salmon) that may involve similar mechanisms.

**AO1: Outline of explanations of animal navigation.**

<b>Band</b>	<b>Mark Allocation</b>	<b>Marks</b>
<b>Band 3 Top</b>	Outline of explanations of animal navigation is <b>substantial</b> . It is <b>accurate and well-detailed</b> . The organisation and structure of the answer are <b>coherent</b> , with <b>substantial</b> evidence of breadth and depth.	<b>12-11</b>
<b>Band 3 Bottom</b>	Outline of explanations of animal navigation is <b>slightly limited</b> . It is <b>accurate and reasonably detailed</b> . The organisation and structure of the answer are <b>coherent</b> , with <b>evidence</b> of breadth and depth.	<b>10-9</b>
<b>Band 2 Top</b>	Outline of explanations of animal navigation is <b>limited</b> . It is <b>generally accurate and reasonably detailed</b> . The organisation and structure of the answer are <b>reasonably constructed</b> , with <b>increasing evidence</b> of breadth and/or depth. <i>Partial performance is substantial, accurate and well-detailed (top of band) or slightly limited, accurate and reasonably detailed (bottom of band).</i>	<b>8-7</b>
<b>Band 2 Bottom</b>	Outline of explanations of animal navigation is <b>basic</b> . It is <b>generally accurate but lacks detail</b> . The organisation and structure of the answer are <b>reasonable</b> , with <b>some evidence</b> of breadth and/or depth. <i>Partial performance is limited, generally accurate and reasonably detailed.</i>	<b>6-5</b>
<b>Band 1 Top</b>	Outline of explanations of animal navigation is <b>rudimentary and sometimes flawed</b> . There is <b>some focus</b> on the question. The organisation and structure of the answer are <b>reasonable</b> . <i>Partial performance is basic, generally accurate and lacking detail.</i>	<b>4-3</b>
<b>Band 1 Bottom</b>	Outline of explanations of animal navigation is <b>just discernible and mainly irrelevant</b> . It is <b>weak and shows muddled</b> understanding. The answer may be <b>wholly irrelevant</b> . <i>Partial performance is rudimentary and sometimes flawed with little focus on the question.</i>	<b>2-0</b>

**AO2: Evaluation of explanations of animal navigation.**

<b>Band</b>	<b>Mark Allocation</b>	<b>Marks</b>
<b>Band 3 Top</b>	Evaluation of explanations of animal navigation is <b>thorough</b> . The material is used in a <b>highly effective</b> manner and shows evidence of <b>appropriate selection and coherent elaboration</b> .	<b>12-11</b>
<b>Band 3 Bottom</b>	Evaluation of explanations of animal navigation is <b>slightly limited</b> . The material is used in an <b>effective</b> manner and shows evidence of <b>appropriate selection and elaboration</b> .	<b>10-9</b>
<b>Band 2 Top</b>	Evaluation of explanations of animal navigation is <b>limited</b> . The material is used in a <b>reasonably effective</b> manner and shows <b>reasonable elaboration</b> . <i>Partial performance is thorough, coherent with highly effective use of material (top of band), or slightly limited with effective use of material (bottom of band).</i>	<b>8-7</b>
<b>Band 2 Bottom</b>	Evaluation of explanations of animal navigation is <b>basic</b> . The material is used in a <b>restricted</b> manner and shows <b>some evidence of elaboration</b> . <i>Partial performance is limited with reasonable elaboration, and reasonably effective use of material.</i>	<b>6-5</b>
<b>Band 1 Top</b>	Evaluation of explanations of animal navigation is <b>superficial and rudimentary</b> . The material is <b>not used effectively</b> and shows no <b>evidence of elaboration</b> . <i>Partial performance is basic with some evidence of elaboration; restricted use of material.</i>	<b>4-3</b>
<b>Band 1 Bottom</b>	Evaluation of explanations of animal navigation is <b>muddled and mainly irrelevant</b> . The material may be <b>wholly irrelevant</b> . <i>Partial performance is superficial with no elaboration; not used effectively.</i>	<b>2-0</b>

15

**Total for this question: 24 marks**

Discuss evolutionary explanations of <b>one or more</b> human mental disorders.	(24 marks)
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**AO1**

Human mental disorders referred to in the Specification are depression (unipolar and bipolar) and anxiety disorders, and candidates are likely to concentrate on these. However there are widely-available hypotheses on evolutionary approaches to schizophrenia, and some centres will focus on these. AO1 material should cover outlines of evolutionary explanations, such as social communication and competition (depression), preparedness and harm avoidance (phobias and obsessive-compulsive disorder), link to language evolution and group-splitting (schizophrenia). General descriptions of, for instance, the EEA and persistence of apparently-maladaptive behaviours may qualify as background AO1 or as general AO2 commentary depending on the context.

Candidates may choose to focus on one or more specific disorders, or to deal with a general category (eg anxiety). Marks should be awarded according to how effectively the explanation is linked to the disorder(s). There will also be a depth/breadth trade-off for candidates discussing more than one disorder.

**AO2**

There are several possible routes to AO2 credit. Research studies are available on, for instance, phobias and preparedness, while the symptoms of depression and schizophrenia can be directly linked to evolutionary approaches. Candidates may also comment on the speculative nature of many of the ideas and the problems of obtaining direct evidence. Alternative explanations from models of abnormality (biological, psychodynamic, behavioural etc) can qualify for AO2 credit as long as they are used as part of *sustained and effective evaluation*, rather than simply being described.

Candidates presenting only *one* evolutionary explanation for *one* mental disorder are showing partial performance and can receive a maximum of 8 marks for AO1 and 8 marks for AO2. Candidates can satisfy the question's requirements by discussing at least *two* explanations or *two* human mental disorders.



**AO1: Description of evolutionary explanations of one or more human mental disorders.**

Band	Mark Allocation	Marks
<b>Band 3 Top</b>	Description of evolutionary explanations of one or more human mental disorders is <b>substantial</b> . It is <b>accurate and well-detailed</b> . The organisation and structure of the answer are <b>coherent</b> , with <b>substantial evidence</b> of breadth and depth.	<b>12-11</b>
<b>Band 3 Bottom</b>	Description of evolutionary explanations of one or more human mental disorders is <b>slightly limited</b> . It is <b>accurate and reasonably detailed</b> . The organisation and structure of the answer are <b>coherent</b> , with <b>evidence</b> of breadth and depth.	<b>10-9</b>
<b>Band 2 Top</b>	Description of evolutionary explanations of one or more human mental disorders is <b>limited</b> . It is <b>generally accurate and reasonably detailed</b> . The organisation and structure of the answer are <b>reasonably constructed</b> , with <b>increasing evidence</b> of breadth and/or depth. <i>Partial performance is substantial, accurate and well-detailed (top of band) or slightly limited, accurate and reasonably detailed (bottom of band).</i>	<b>8-7</b>
<b>Band 2 Bottom</b>	Description of evolutionary explanations of one or more human mental disorders is <b>basic</b> . It is <b>generally accurate but lacks detail</b> . The organisation and structure of the answer are <b>reasonable</b> , with <b>some evidence</b> of breadth and/or depth. <i>Partial performance is limited, generally accurate and reasonably detailed.</i>	<b>6-5</b>
<b>Band 1 Top</b>	Description of evolutionary explanations of one or more human mental disorders is <b>rudimentary and sometimes flawed</b> . There is <b>some focus</b> on the question. The organisation and structure of the answer are <b>reasonable</b> . <i>Partial performance is basic, generally accurate and lacking detail.</i>	<b>4-3</b>
<b>Band 1 Bottom</b>	Description of evolutionary explanations of one or more human mental disorders is <b>just discernible and mainly irrelevant</b> . It is <b>weak and shows muddled</b> understanding. The answer may be <b>wholly irrelevant</b> to the question's requirement. <i>Partial performance is rudimentary and sometimes flawed with little focus on the question.</i>	<b>2-0</b>

**AO2: Evaluation of evolutionary explanations of one or more human mental disorders.**

Band	Mark Allocation	Marks
<b>Band 3 Top</b>	Evaluation of evolutionary explanations of one or more human mental disorders is <b>thorough</b> . The material is used in a <b>highly effective</b> manner and shows evidence of <b>appropriate selection and coherent elaboration</b> .	<b>12-11</b>
<b>Band 3 Bottom</b>	Evaluation of evolutionary explanations of one or more human mental disorders is <b>slightly limited</b> . The material is used in an <b>effective</b> manner and shows evidence of <b>appropriate selection and elaboration</b> .	<b>10-9</b>
<b>Band 2 Top</b>	Evaluation of evolutionary explanations of one or more human mental disorders is <b>limited</b> . The material is used in a <b>reasonably effective</b> manner and shows <b>reasonable elaboration</b> . <i>Partial performance is thorough, highly effective and coherent (top of band) or slightly limited and effective (bottom of band).</i>	<b>8-7</b>
<b>Band 2 Bottom</b>	Evaluation of evolutionary explanations of one or more human mental disorders is <b>basic</b> . The material is used in a <b>restricted</b> manner and shows <b>some evidence of elaboration</b> . <i>Partial performance is limited and reasonably effective with reasonable elaboration.</i>	<b>6-5</b>
<b>Band 1 Top</b>	Evaluation of evolutionary explanations of one or more human mental disorders is <b>superficial and rudimentary</b> . The material is <b>not used effectively</b> and shows <b>no evidence of elaboration</b> . <i>Partial performance is basic and restricted with some evidence of elaboration.</i>	<b>4-3</b>
<b>Band 1 Bottom</b>	Evaluation of evolutionary explanations of one or more human mental disorders is <b>muddled and mainly irrelevant</b> . The material may be <b>wholly irrelevant</b> . <i>Partial performance is superficial and not used effectively with no evidence of elaboration.</i>	<b>2-0</b>

**A LEVEL/A2 UNIT 4: ASSESSMENT GRID**

<b>Question Number</b>	<b>AO1</b>	<b>AO2</b>
1	12	12
2	12	12
3	12	12
4(a)	12	
4(b)		12
5	12	12
6	12	12
7(a)	12	
7(b)		12
8(a)	12	
8(b)		12
9	12	12
10	12	12
11	12	12
12	12	12
13	12	12
14	12	12
15	12	12

<b>Marks</b>	<b>AO1</b>	<b>AO2</b>	<b>QoWC</b>
Total marks for 3 questions	36	36	4
A-Level total weighting (15%)	7.8%	7.2%	