



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 - January 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)

**SOCIAL PSYCHOLOGY, PHYSIOLOGICAL PSYCHOLOGY,
COGNITIVE PSYCHOLOGY, DEVELOPMENTAL PSYCHOLOGY
AND COMPARATIVE PSYCHOLOGY**

QUALITY OF WRITTEN COMMUNICATION (QoWC)

Band 3	The work is characterised by a CLEAR expression of ideas, the use of a GOOD range of specialist terms, and FEW errors of grammar, punctuation and spelling.	4-3 marks
Band 2	The work is characterised by a REASONABLE expression of ideas, the use of SOME specialist terms, and REASONABLE grammar, punctuation and spelling.	2-1 marks
Band 1	The work is characterised by a POOR expression of ideas, the use of a LIMITED range of specialist terms, and POOR grammar, punctuation and spelling.	0 marks

PYA4 ASSESSMENT OBJECTIVE 1

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

PYA4 ASSESSMENT OBJECTIVE 2

	Evaluation is	Material is used	Selection and elaboration
12-11	Thorough	Highly effective	Appropriate selection and coherent elaboration
10-9	Slightly limited	Effective	Appropriate selection and elaboration
8-7	Limited	Reasonably effective	Reasonable elaboration
6-5	Basic	Restricted	Some evidence of elaboration
4-3	Superficial and rudimentary	Not effective	No evidence of elaboration
2-0	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 **two or more** errors and/or biases in the attribution process.

(24 marks)

AO1

Attribution errors or biases are distortions in the perception or judgement of the causes of our own or other people's behaviour. Examples given in the Specification are the self-serving bias and the fundamental attribution error. Other possibilities include actor-observer differences and the group serving bias. Description of *theories* relating to the attribution process may be creditworthy if they are explicitly linked to errors and/or biases in terms of *explaining* them. Description of research studies/findings on attribution errors/biases would also qualify as AO1, while the effective use of these in supporting or contradicting the existence of such errors/biases would qualify as AO2.

Candidates often fail to distinguish clearly *two* types of error and/or bias. Where this occurs, the benefit of any doubt should go to the candidate.

Two or more errors/biases are required, and candidates presenting only one are showing partial performance and can earn a maximum of 8 marks for AO1.

AO2

As mentioned above, research evidence would be an effective way of discussing and evaluating errors and/or biases in the attribution process. More general commentary, such as cultural differences or the possible significance of attribution biases and errors in everyday life, would be directly relevant to this question. An effective example would be the cognitive approach to depression that emphasises attribution biases in one's perception of the world. To earn AO2 marks the relevance of this model to an understanding of depression should be explicit; description of the model would qualify for AO1 credit.

Two or more errors/biases are required, and candidates evaluating only one are showing partial performance and can earn a maximum of 8 marks for AO2.

AO1: Description of two or more errors and/or biases in the attribution process.

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

AO2: Evaluation of two or more errors and/or biases in the attribution process.

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

2

Total for this question: 24 marks

(a) Outline **two** theories relating to the formation and/or maintenance of relationships (eg social exchange theory, reward and/or need satisfaction). (12 marks)

(b) Evaluate **one** of the theories of the formation and/or maintenance of relationships you have outlined in (a). (12 marks)

(a) AO1

The Specification distinguishes interpersonal attraction from formation and/or maintenance of relationships. However it is difficult to exclude interpersonal attraction as a component of relationship formation, but candidates must clearly place such material in the context of relationship formation rather than simply presenting studies on interpersonal attraction. They must also be able to present *factors* in interpersonal attraction (similarity, proximity etc) as part of a *model/theory* of attraction in order to receive credit. Social exchange, reward/need satisfaction, and equity theory are likely to feature as central to the question, while *models* of established relationships (eg Thibaut & Kelly) would also be acceptable. Given its status and presentation in text books, Murtsein’s matching hypothesis is acceptable as a theory of relationship formation/maintenance. As the stages of relationships naturally overlap, it is also possible for candidates to introduce other aspects of relationships (eg dissolution), but these must be made *explicitly* relevant to the question to receive credit. There is also no requirement for the candidate to focus on romantic relationships; theories relating to eg understudied relationships could be relevant to this question.

Two theories are required, and partial performance penalties apply to AO1 if only one is presented. If more than two theories are presented, the best two should be credited.

(b) AO2

Theories of formation and/or maintenance of relationships may be evaluated in various ways. Research studies can provide supporting or contradictory findings, while more general commentary could include cultural bias, the focus of some research on short-term relationships, or the lack of ecological validity for some studies. Other theories may be introduced as an effective way of evaluating the target theory, but can only receive credit if used explicitly in this way.

Material, such as research studies, that is potentially relevant but not used effectively can receive a maximum mark for AO2 at the top of Band 1.

Under the *exporting rule*, material that would not receive credit in one question part can be exported to another part if it would receive credit there. This may include evaluative material in part (a) of this question that would receive credit in part (b). Note that research studies can be used in (a) to *illustrate* models and theories (AO1), or in (b) explicitly to support/contradict them (AO2).

Note

The question does not exclude material from, for instance socio biology or evolutionary psychology. However such material must be *shaped* to formation/maintenance of relationships *and* represent a *theory* to earn marks. Description of individual studies/phenomena is not credit worthy.

AO1: Outline of two theories relating to the formation and/or maintenance of relationships.

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

AO2: Evaluation of one theory relating to the formation and/or maintenance of relationships.

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

3

Total for this question: 24 marks

Outline and evaluate two social psychological theories of aggression (eg social learning theory, deindividuation). (24 marks)

AO1

Examples of social psychological theories given in the Specification are social learning theory, deindividuation, and relative deprivation, but candidates may also introduce theories that are more psychological than social psychological eg frustration-aggression, or psychodynamic ideas. Such psychological theories usually have a ‘social’ context relevant to the origins of aggression, and so can be accepted as relevant to this question. Theories emphasising the evolutionary or biological origins of aggression would not be appropriate.

Description of research studies, (eg Bandura’s Bobo dolls, Zimbardo’s prison study) can earn AO1 marks if used to *illustrate* theory. If clearly contextualised as supporting/contradicting theories, research studies should be credited under AO2.

AO2

Support from research findings would be an effective method of evaluating theories, while evaluation of the studies themselves could also be relevant AO2 as it could directly affect the degree of support that can be derived from them. However there must be some attempt by the candidate to draw such conclusions for credit to be given. General commentary on eg the nature of aggression, cultural biases, ecological validity of studies etc, would earn marks insofar as it is placed in the context of identifiable theories. Alternative theories, such as evolutionary or biological approaches, may be introduced. If used as effective evaluation of the target theories ie as part of sustained and effective commentary, such material can earn AO2 credit.

Two theories are required. Candidates who outline and/or evaluate only one are exhibiting partial performance and can receive a maximum of 8 marks for AO1 and 8 marks for AO2.

AO1: Outline of two social psychological theories of aggression.

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

AO2: Evaluation of two social psychological theories of aggression.

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

SECTION B - PHYSIOLOGICAL PSYCHOLOGY

4

Total for this question: 24 marks

Discuss research relating to hemisphere asymmetries of function in the cerebral cortex. (24 marks)
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Most work in this area is related to language and it is acceptable for candidates to concentrate on this. There is no requirement for them to consider other functions, and no partial performance penalties.

AO1

Relevant descriptions and explanations of the basic asymmetries found in the cerebral cortex emerge from research and can receive AO1 credit. Other sources of AO1 material may include descriptions of Sperry's original work on split-brain (commissurotomed) patients. These descriptions will vary in detail and accuracy. Enough of these studies were done for candidates to access marks across the range. Additional sources of AO1 may include divided field and dichotic listening research with intact participants, case studies of brain-damaged patients, the WADA test for speech laterality, and more recent scanning work. *Description* of variations in the 'normal' pattern with eg gender and handedness, or cortical organisation in non-human animals, would also be acceptable AO1 material.

AO2

It is traditionally difficult for candidates to access AO2 marks in physiological psychology. For this question candidates can be expected to provide evaluation of Sperry's work (especially in terms of the number of participants and their variability), including perhaps the support (or not) from other research findings. *Reference to* and *discussion of* variations in the 'normal' pattern would also count as AO2. Candidates may also introduce functions (sensory and/or motor) that show cortical hemispheric symmetry as a contrast to lateralised functions. Although less likely, commentary on the evolution or other general aspects of hemisphere asymmetries would be directly relevant to this question.

AO1: Outline of research relating to hemisphere asymmetries of function.

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

AO2: Evaluation of research relating to hemisphere asymmetries of function.

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

5

Total for this question: 24 marks

(a) Outline **two** theories of dreaming.

(12 marks)

(b) Evaluate **one** of the theories of dreaming that you have outlined in (a).

(12 marks)

Questions on dreaming can lead to confusion over the relationship between dreaming and REM sleep. As the Specification has ‘Dreaming’ as a separate section any candidate who answers in terms of the characteristics and functions of REM sleep will not receive marks unless there is some explicit and relevant reference to dream theories and/or imagery.

(a) AO1

For their AO1 material candidates are not restricted to particular classes of theory and may outline two neurobiological theories, two psychological theories, or one of each. It is likely that they will present two out of Freud, Crick & Mitchison, and Hobson-McCarley. Variation is likely in the level of accurate detail; as two theories are required there should be a *reasonable* balance between them, but a *perfect* balance is not necessary for marks in the top band. If only one theory is outlined the candidate is showing partial performance and can receive a maximum of 8 marks for AO1. If the candidate clearly refers to two *metatheories*, such as *psychological* and *neurobiological*, full credit can be earned. If several theories are outlined, the best two should be assessed.

Some candidates may be unable to restrain themselves from describing the *stages* of sleep. This is unlikely to earn marks unless directly linked to neurobiological theories of dreaming.

(b) AO2

There are various ways in which theories of dreaming can be evaluated. These include empirical/research support (eg origins in brain neurophysiology and organisation for Hobson-McCarley, relation of cortical size to absence of REM/dreaming for Crick & Mitchison, studies on dream imagery in depressed people for Cartwright’s problem-solving approach), ability to account for dreaming/REM characteristics such as its ubiquitous nature and the large amount found in newborn humans, and problems with dream research in general (subjective nature, multiple interpretations of dream imagery, the ‘laboratory effect’ etc). Candidates may introduce alternative theories as an effective method of evaluation, but these have to be used *explicitly* as evaluation/commentary to earn marks.

If candidates introduce material in one question part that does not earn marks but would do so if *exported* to the other part, then this rule should be applied.

AO1: Outline of two theories of dreaming.

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

AO2: Evaluation of one theory of dreaming.

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

6

Total for this question: 24 marks

Critically consider **one or more** theories of motivation.

(24 marks)

AO1

Theories of motivation referred to in the Specification, and therefore likely to be presented, are homeostatic drive theory, expectancy theory, and drive-reduction theory.

The question is on theories of motivation. It is important that candidates focus on the explanation of the arousal and direction of behaviour. With physiological-based approaches studies on, for instance, hypothalamic lesions and feeding must be explicitly linked to homeostatic or drive-reduction *theories* to earn marks.

Some candidates may introduce work on reward pathways and self-stimulation/drug effects. Again, this must be linked to a *theory* of motivation.

AO2

Evaluation of theories of motivation is likely to focus on the degree of support from research studies and the extent to which they explain motivation in humans and in non-human animals. The more physiological approaches are likely to be supported by a wealth of research evidence, but largely from non-human animals. A key problem for them is extrapolation to more complex human motivations, and in general a failure to emphasise cognitive elements in motivational states. For the more psychological models, such as Murray's Needs or incentive theory, the opposite pattern applies; a relative lack of empirical support but an ability to explain complex human motivations.

If more than one theory is presented but additional theories are simply *described*, these may earn AO1 marks, while *explicit* use of additional theories as *evaluation* may earn AO2 marks, especially if used as part of sustained and effective commentary.

AO1: Description of one or more theories of motivation.

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

AO2: Evaluation of one or more theories of motivation.

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

SECTION C - COGNITIVE PSYCHOLOGY

7

Total for this question: 24 marks

Discuss research into controlled **and** automatic processing.

(24 marks)

AO1

Controlled and automatic processing were described most clearly in Shiffrin and Schneider's original work. Accurate outlines of their ideas, such as serial versus parallel processing and conscious versus sub/preconscious, can qualify for AO1 marks as representing their theory and based on the outcome of research studies. Other material accessible to candidates would be the Stroop effect and examples of overlearned skills moving from controlled to automatic processing (eg keyboard skills). Action slips and performance deficits associated with automatic processing would also be relevant to this question, but must be described in the context of automatic processing to earn credit.

AO2

Shiffrin and Schneider's ideas can be evaluated at various levels. Some of the concepts are poorly defined, such as the mechanism underlying the switch from controlled to automatic processing. Research support comes from studies of focused and divided attention (dual task paradigms), while alternative explanations have been proposed for some of the phenomena, such as action slips eg Norman's schema model and Norman & Shallice's supervisory attentional system. More general comments might include the positive contribution of Shiffrin and Schneider's ideas in providing a means of incorporating sub/preconscious processes into experimental psychology.

Candidates are required to discuss both automatic and controlled processing, and in theory partial performance is a possibility. In practice the two types of processing are so intertwined that partial performance will only be found in answers that are either very short and/or concerned with perhaps a single study. Such answers would anyway be limited to Band 1 for both AO1 and AO2.

AO1: Description of research into controlled and automatic processing.

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

AO2: Evaluation of research into controlled and automatic processing.

Band	Mark Allocation	Marks
Band 3 Top	Evaluation of research into controlled and automatic processing is thorough. The material is used in a highly effective manner and shows evidence of appropriate selection and coherent elaboration.	12-11
Band 3 Bottom	Evaluation of research into controlled and automatic processing is slightly limited. The material is used in an effective manner and shows evidence of appropriate selection and elaboration.	10-9
Band 2 Top	Evaluation of research into controlled and automatic processing is limited. The material is used in a reasonably effective manner and shows reasonable elaboration.	8-7
Band 2 Bottom	Evaluation of research into controlled and automatic processing is basic. The material is used in a restricted manner and shows some evidence of elaboration.	6-5
Band 1 Top	Evaluation of research into controlled and automatic processing is superficial and rudimentary. The material is not used effectively and shows no evidence of elaboration.	4-3
Band 1 Bottom	Evaluation of research into controlled and automatic processing is muddled and incomplete. The material may be wholly or mainly irrelevant.	2-0

8

Total for this question: 24 marks

Discuss research into perceptual organisation.

(24 marks)

AO1

Examples of perceptual organisation given in the Specification include depth, movement, constancies and illusions. AO1 material could therefore include *description* of these phenomena based on research evidence. That section of the Specification also refers to *explanations* of perceptual organisation derived from theories of visual perception such as constructionist and direct approaches. Therefore outlines of these explanations can receive AO1 credit. Candidates may focus on theories of visual perception and fail to bring out the relevance for explanations of perceptual organisation, and such material would fail to earn credit.

Descriptions of the visual system would not earn credit unless made relevant to aspects of perceptual organisation such as depth perception or perceptual constancies.

AO2

Commentary and evaluation of research into perceptual organisation could take various forms. For instance, the relative roles of different cues underlying movement (eg eye and head movements, passage of stimuli across the retina) or depth perception (eg relative size, motion parallax) could be discussed, and reference to research studies would be especially important. If theories of perception are introduced, their relative success in explaining perceptual phenomena such as visual illusions would be relevant AO2 material, although the focus must be on aspects of perceptual organisation rather than on the theories themselves.

The question is very general and does not exclude AO1 or AO2 material based, for instance, on the *development* of perceptual organisation. However there must be some reference to features of *perceptual organisation* (eg depth perception) for either AO1 or AO2 credit to be earned.

AO1: Description of research into perceptual organisation.

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

AO2: Evaluation of research into perceptual organisation.

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

9

Total for this question: 24 marks

Describe and evaluate research into decision-making.

(24 marks)

AO1

Decision making is a special example of problem solving when the range of possible solutions or outcomes is known. The two topics are, however, clearly differentiated in the Specification and material specifically on problem solving is unlikely to earn marks. It would have to be explicitly linked to decision making, and although this is possible with some approaches to problem solving (eg means-end analysis), with others it is unlikely (eg Gestalt approaches). Each case must be considered on its merits.

There are a variety of decision making models and strategies eg compensatory and non-compensatory models, maximax and minimax strategies, and availability and representativeness heuristics. General influences on decision making include the gamblers' fallacy (an example of belief perseverance), over-confidence, loss aversion, hindsight, and framing. Although unlikely, computer modelling of decision making (eg Newell's General Problem Solver), expert systems, and the information-processing approach in general would be relevant to this question.

AO2

Evaluation of research in decision making can take various forms. Candidates may discuss the evidence for the accuracy, or not, of human decision making, and the value of different approaches in explaining our irrational and fallacious thinking. Methodological issues are also critical. The phrasing of questions may make a significant difference to decision making, while much of the research is based on artificial laboratory settings and may produce different results when repeated in real-life situations. Individual differences would also be relevant, especially Lopes (1987) work on risk-averse and risk-seeking people

AO1: Description of research into decision making.

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

AO2: Evaluation of research into decision making.

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

SECTION D - DEVELOPMENTAL PSYCHOLOGY

10

Total for this question: 24 marks

Describe and evaluate **one** theory of the development of moral understanding and/or pro-social reasoning.
(24 marks)

AO1

Theories of the development of moral understanding and/or pro-social reasoning given as examples in the Specification are Kohlberg and Eisenberg, while Piaget is also likely to be popular. Some candidates may introduce general approaches to the development of moral behaviour such as social learning or psychoanalytic theory. Given the problem of distinguishing moral *understanding* from moral *behaviour* such approaches would be acceptable as long as they focus on *development*. Piaget and Kohlberg may also be considered as jointly representing a single ‘cognitive-developmental’ perspective, and as long as this is clear this is an acceptable approach to the question.

AO2

Theories may be evaluated in a variety of ways. Research findings may support or contradict, and research studies themselves may be evaluated as their validity influences how relevant they can be. However, credit for evaluation of studies is limited to Band 1 for AO2 *unless* it is explicitly linked to evaluation of the theory. Other more general issues include culture and gender bias. Alternative theories may be introduced as an effective method of assessing the target theory. However these can only receive AO2 credit if their use is explicit and part of sustained and effective evaluation.

The focus in this part of the Specification and in this question is on *development* of moral understanding. Answers that do not refer to developmental aspects will not receive credit. From the opposite angle, theories of *cognitive* development that are not made relevant to *moral* development are clearly separated in the Specification and cannot receive credit. However such answers should be read carefully for any relevant material and/or links to the question.

AO1: Description of one theory of the development of moral understanding and/or prosocial reasoning.

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

AO2: Evaluation of one theory of the development of moral understanding/prosocial reasoning.

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

11

Total for this question: 24 marks

<p>‘Relationships with parents and peers have been an important focus of psychological research into adolescence.’ Discuss research into relationships during adolescence. (24 marks)</p>
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AO1

This is an area dominated by a large number of studies but without clear theoretical positions. Theories of adolescent development (Erikson, Marcia, ‘storm and stress’ etc) all involve relationships, especially with parents and peers, and could be used to frame answers, but it would also be acceptable for candidates to present studies without a clear theoretical context but which directly address the question. The role of, for instance, peer groups, is not embedded in any particular theory but is central to the question. Consideration of relationships other than those with parents and peers would be acceptable for marks across the range.

Candidates may describe theories of development in adolescence (eg gender identity, social development). Credit can be given where relationships are discussed, but this must be explicit rather than implied. There are also clear depth/breadth trade-offs for candidates who choose to cover a number of relationships rather than just one.

AO2

Evaluation of research can take a variety of forms. Specific studies can be addressed in terms of methodological issues and wider aspects such as gender or cultural bias. *Implications* of studies may be another important area eg with development of self, autonomy, or gender identity being affected by good or bad relationships with, for instance, parents and peers. Studies may also support or contradict broader theoretical approaches such as ‘storm and stress’.

AO1: Description of research into relationships during adolescence.

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

AO2: Evaluation of research into relationships during adolescence.

Band	Mark Allocation	Marks
Band 3 Top	Evaluation of research into relationships during adolescence is thorough. The material is used in a highly effective manner and shows evidence of appropriate selection and coherent elaboration.	12-11
Band 3 Bottom	Evaluation of research into relationships during adolescence is slightly limited. The material is used in an effective manner and shows evidence of appropriate selection and elaboration.	10-9
Band 2 Top	Evaluation of research into relationships during adolescence is limited. The material is used in a reasonably effective manner and shows reasonable elaboration.	8-7
Band 2 Bottom	Evaluation of research into relationships during adolescence is basic. The material is used in a restricted manner and shows some evidence of elaboration.	6-5
Band 1 Top	Evaluation of research into relationships during adolescence is superficial and rudimentary. The material is not used effectively and shows no evidence of elaboration.	4-3
Band 1 Bottom	Evaluation of research into relationships during adolescence is muddled and incomplete. The material may be wholly or mainly irrelevant.	2-0

12

Total for this question: 24 marks

Discuss research into the existence of crises and transitions in early and/or middle adulthood. (24 marks)

AO1

Candidates may describe *theoretical* approaches to the issue of life crises and transitions in early and/or middle adulthood. The most popular theories are likely to be Erikson's stages, Levinson's seasons, and Gould's evolution of adult consciousness. One problem with life span approaches is to decide the limits of early and middle adulthood; with Erikson it would be intimacy v. isolation to generativity v. stagnation, with Levinson early adulthood to middle adulthood, and with Gould early twenties to mid forties. If material on earlier or later phases is presented, it can only receive credit if discussed in the context of transitions to or from early and/or middle age.

It would also be acceptable for candidates to describe research studies into crises and transitions in early and/or middle adulthood.

AO2

The focus for AO2 material should be the existence or not of crises and transitions in early and/or middle age. An effective approach would be to consider the extent to which crises and transitions play a part in different theories; for instance, crisis resolution is central to Erikson and Gould, while Levinson emphasises transitions from one era to the next. Research evidence for the existence of crises and transitions would also be relevant, whether supporting the existence of eg a mid-life crisis, or contradicting it. The *impact* of major life events such as marriage, children, or bereavement would also qualify as relevant AO2, as the question does not require evidence to be embedded in theory. Other possible sources of AO2 include gender and cultural biases in studies and theories, and the general quality of data in this area.

AO1: Description of research into crises and transitions in early and/or middle adulthood.

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

AO2: Evaluation of research into crises and transitions in early/middle adulthood.

Band	Mark Allocation	Marks
Band 3 Top	Evaluation of research into crises and transitions in early and/or middle adulthood is thorough. The material is used in a highly effective manner and shows evidence of appropriate selection and coherent elaboration.	12-11
Band 3 Bottom	Evaluation of research into crises and transitions in early and/or middle adulthood is slightly limited. The material is used in an effective manner and shows evidence of appropriate selection and elaboration.	10-9
Band 2 Top	Evaluation of research into crises and transitions in early and/or middle adulthood is limited. The material is used in a reasonably effective manner and shows reasonable elaboration.	8-7
Band 2 Bottom	Evaluation of research into crises and transitions in early and/or middle adulthood is basic. The material is used in a restricted manner and shows some evidence of elaboration.	6-5
Band 1 Top	Evaluation of research into crises and transitions in early and/or middle adulthood is superficial and rudimentary. The material is not used effectively and shows no evidence of elaboration.	4-3
Band 1 Bottom	Evaluation of research into crises and transitions in early and/or middle adulthood is muddled and incomplete. The material may be wholly or mainly irrelevant.	2-0

SECTION E - COMPARATIVE PSYCHOLOGY

13

Total for this question: 24 marks

Critically consider **one or more** biological explanations of apparent altruism in non-human animals.
(24 marks)

AO1

Biological explanations of apparent altruism include kin selection theory and reciprocal altruism. A substantial answer could include an outline of altruistic behaviour and how explanations relate to evolutionary concepts such as natural selection, the selfish gene model, and inclusive/individual fitness. *Descriptions* of studies of apparent altruism would also qualify as relevant AO1.

Explanations of human altruism and/or pro-social behaviour (eg negative-state relief, empathy-altruism) are not relevant to this question.

AO2

Consideration of biological explanations of apparent altruism can take various forms. Both kin selection and reciprocal altruism can derive support from observational studies in a variety of species. Comparison of the two could include apparent altruism between unrelated individuals (lionesses, vampire bats) supporting reciprocal altruism rather than kin selection. More general commentary could include eg the consequences of *cheating* in reciprocal altruism, while better answers may consider the role of a variety of strategies. The success of explanations based on work with non-human animals in explaining human altruism could be effective commentary, but the *focus* of the answer should be on altruism in non-human animals.

AO1: Description of one or more biological explanations of apparent altruism.

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

AO2: Evaluation of one or more biological explanations of apparent altruism.

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

Discuss research into the use of different signalling systems in non-human animals.	(24 marks)
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AO1

Signalling systems used by non-human animals come in a variety of forms, including visual, auditory, and olfactory. This topic also overlaps with studies of animal language, and a particular problem for candidates will be to organise their material around the question rather than being distracted into other areas. Relevant AO1 could include an overview of signals and their role in eg courtship/mating, food sources, or threats, and the link between signals and fitness (eg the differences between communication, eavesdropping, and deceit).

The most popular approach is likely to be descriptions of a range of signalling systems used by non-human animals. There is likely to be great variation in the accuracy of these accounts, particularly of the precise *role* of the signalling system.

If an answer focuses on *animal language* it would still be possible for candidates to earn marks. The round dance and waggle dance in bees, and even the use of ASL and key symbols by primates, are signalling systems. However, unless the candidate explicitly discussed these as *signalling systems* they can earn a maximum marks at the top of Band 1 for AO1 and for AO2.

There is a requirement to discuss more than one signalling system. Candidates who describe only one are therefore exhibiting partial performance and can receive a maximum of 8 marks for AO1. Otherwise this should be straightforward if they cover at least two out of visual, auditory, olfactory systems; however it can be argued that each of these includes a variety of different systems eg vervet monkey alarm calls versus courtship calls in birds. It would be acceptable for candidates to consider two distinct systems in the same modality.

AO2

General commentary on the variety of systems and their specific functions, particularly if illustrated by examples, would earn AO2 marks. More effective might be a discussion and/or comparison of different systems in terms of their effectiveness. This could include vulnerability to darkness, weather conditions, vulnerability to eavesdropping/predators, complexity of the possible messages, distance etc.

Candidates evaluating only one system are exhibiting partial performance and can receive a maximum of 8 marks for AO2. Material on signalling systems in humans will not earn AO1 or AO2 marks unless used explicitly to evaluate signalling systems in non-human animals.

AO1: Description of research into the use of different signalling systems.

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

AO2: Evaluation of research into the use of different signalling systems.

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

15

Total for this question: 24 marks

Discuss evolutionary factors in the development of human intelligence.

(24 marks)

AO1

In this section of the Specification the evolutionary development of intelligence is separated out from the evolution and development of brain size. Although there is no perfect relationship between brain size and intelligence the two have been closely related through evolutionary history and it would be difficult to exclude material on the evolution of brain size as irrelevant to this question. Factors implicated in the development of intelligence, such as foraging, Machiavellian intelligence, social complexity and group size, tool use etc. have all been similarly implicated in the evolution of larger brains. Thus, candidates who focus on brain size but who make it clear that this is fundamental to the development of intelligence can earn marks across the board.

AO2

Evaluation of evolutionary factors in the development of intelligence is likely to be fairly general as research studies are thin on the ground. Commentary could include the apparent increase in intelligence through evolution correlating with more complex social systems and flexible behaviour in living primates, the increasing evidence on tool use, brain size, and social behaviour in extinct hominids, and ethnographic studies on living foraging peoples. Methodological issues, such as the problems of obtaining reliable and valid evidence on evolutionary history, would also be very relevant.

AO1: Description of evolutionary factors in the development of human intelligence.

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

AO2: Evaluation of evolutionary factors in the development of human intelligence.

Band	Mark Allocation	Marks
Band 3 Top	Evaluation of evolutionary factors in the development of human intelligence is thorough. The material is used in a highly effective manner and shows evidence of appropriate selection and coherent elaboration.	12-11
Band 3 Bottom	Evaluation of evolutionary factors in the development of human intelligence is slightly limited. The material is used in an effective manner and shows evidence of appropriate selection and elaboration.	10-9
Band 2 Top	Evaluation of evolutionary factors in the development of human intelligence is limited. The material is used in a reasonably effective manner and shows reasonable elaboration.	8-7
Band 2 Bottom	Evaluation of evolutionary factors in the development of human intelligence is basic. The material is used in a restricted manner and shows some evidence of elaboration.	6-5
Band 1 Top	Evaluation of evolutionary factors in the development of human intelligence is superficial and rudimentary. The material is not used effectively and shows no evidence of elaboration.	4-3
Band 1 Bottom	Evaluation of evolutionary factors in the development of human intelligence is muddled and incomplete. The material may be wholly or mainly irrelevant.	2-0

A LEVEL/A2 UNIT 4: ASSESSMENT GRID

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

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