



General Certificate of Education

Psychology 6181

Specification A

Unit 4 (PYA4)

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

Mark Scheme

2007 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.

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**QUALITY OF WRITTEN COMMUNICATION
(QoWC)**

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

PYA4 ASSESSMENT OBJECTIVE 1

	Content	Detail and accuracy	Organisation and structure	Breadth and depth
12-11	Substantial	Accurate and well-detailed	Coherent	Substantial evidence of both and balance achieved
10-9	Slightly limited	Accurate and reasonably detailed	Coherent	Evidence of both but unbalanced
8-7	Limited	Generally accurate and 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 focussed	
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 social **and/or** cultural stereotyping.

(24 marks)

AO1

This is a broad question in which candidates may address the nature of social and/or cultural stereotyping through outlining definitions of stereotypes (eg schema approaches), features and characteristics of stereotypes, and functions (eg directing attention and information encoding and retrieval, saving cognitive 'energy') and origins (eg grain of truth and illusory correlations) of stereotypes. Not all of these will be covered, but to move beyond Band 2, answers should demonstrate either substantial breadth or depth.

In this part of the specification, candidates sometimes introduce other aspects of social cognition such as attribution theory and the general nature of social representations. Unless such material is explicitly linked to social/cultural stereotyping, it cannot receive credit.

AO2

Candidates may access AO2 marks through commentary on any of the AO1 material, such as evaluating the likelihood of illusory correlations or the grain of truth hypothesis. To be fully effective, such evaluation should also include relevant research evidence. General consideration of the usefulness of stereotypes, or of their role for instance in prejudice and discrimination, would also be creditable. However, the focus of the question is on stereotyping, and other considerations such as prejudice and discrimination must be used as part of sustained and effective commentary to earn significant AO2 marks.

Distinguishing AO1 and AO2 material may occasionally prove difficult. In such cases, material may be credited as either AO1 or AO2, whichever benefits the candidate more.

AO1: Description of social and/or cultural stereotyping.

Band	Mark Allocation	Marks
Band 3 Top	Description of social and/or cultural stereotyping 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 social and/or cultural stereotyping 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 social and/or cultural stereotyping 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 social and/or cultural stereotyping 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 social and/or cultural stereotyping 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 social and/or cultural stereotyping is just discernible or mainly irrelevant . It is weak and shows muddled understanding. The answer may be wholly irrelevant .	2-0

AO2: Commentary on social and/or cultural stereotyping.

Band	Mark Allocation	Marks
Band 3 Top	Commentary on social and/or cultural stereotyping 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	Commentary on social and/or cultural stereotyping is slightly limited . The material is used in an effective manner and shows evidence of appropriate selection and elaboration .	10-9
Band 2 Top	Commentary on social and/or cultural stereotyping is limited . The material is used in a reasonably effective manner and shows reasonable elaboration .	8-7
Band 2 Bottom	Commentary on social and/or cultural stereotyping is basic . The material is used in a restricted manner and shows some evidence of elaboration .	6-5
Band 1 Top	Commentary on social and/or cultural stereotyping is superficial and rudimentary . The material is not used effectively and shows no evidence of elaboration .	4-3
Band 1 Bottom	Commentary on social and/or cultural stereotyping is muddled and mainly irrelevant . The material may be wholly irrelevant .	2-0

2**Total for this question: 24 marks**

Discuss the nature of relationships in different cultures. Use research studies in your answer. (24 marks)
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AO1

Candidates may earn AO1 marks through describing the nature of relationships in different cultures. 'Relationships' is an inclusive term covering all stages of a relationship, from attraction and formation through to dissolution. It also covers different types of relationship such as friendship and marriage. 'Culture' can refer to broad categories, such as western versus non-western, or to different ethnic or class groups within a culture; these could include minority ethnic groups.

Research studies that *illustrate* relationships in different cultures may earn AO1 credit, but if used as part of explicit and sustained commentary would qualify for AO2 credit. If candidates include material on areas such as understudied relationships or gender differences, such material is only credit-worthy if the link to 'culture' is explicit.

AO2

As mentioned above, AO2 material could include research studies used as part of a commentary on relationships in different cultures. There are many relevant studies, and candidates can be expected to use this material to discuss such relationships. It is likely that answers will focus on differences, but this is not required for marks across the range. It would be legitimate for candidates to comment more generally on, for instance, evidence for *similarities* across different cultures as opposed to differences, or on *explanations* for similarities and differences.

The focus in this question is on relationships across cultures and on research studies. *Explanations* are not necessary for full marks in this question, but a discussion of explanations would be part of relevant commentary and earn AO2 credit. In some cases, such as the work of eg Moghaddam and Hofstede, research is based heavily on empirical research and could legitimately be used to *illustrate* (AO1) or *as commentary on* (AO2) the nature of relationships in different cultures. As long as such work is not double credited, examiners should credit it to the benefit of the candidate.

Candidates are required to use research studies in their answer. Answers with no reference to research studies can earn a maximum of 8 marks for AO1 and 8 marks for AO2.

AO1: Description of the nature of relationships in different cultures.

Band	Mark Allocation	Marks
Band 3 Top	Description of the nature of relationships in different cultures 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 the nature of relationships in different cultures 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 the nature of relationships in different cultures 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 the nature of relationships in different cultures 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 the nature of relationships in different cultures 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 the nature of relationships in different cultures is just discernible or mainly irrelevant . It is weak and shows muddled understanding. The answer may be wholly irrelevant .	2-0

AO2: Commentary on the nature of relationships in different cultures.

Band	Mark Allocation	Marks
Band 3 Top	Commentary on the nature of relationships in different cultures 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	Commentary on the nature of relationships in different cultures is slightly limited . The material is used in an effective manner and shows evidence of appropriate selection and elaboration .	10-9
Band 2 Top	Commentary on the nature of relationships in different cultures is limited . The material is used in a reasonably effective manner and shows reasonable elaboration .	8-7
Band 2 Bottom	Commentary on the nature of relationships in different cultures is basic . The material is used in a restricted manner and shows some evidence of elaboration .	6-5
Band 1 Top	Commentary on the nature of relationships in different cultures is superficial and rudimentary . The material is not used effectively and shows no evidence of elaboration .	4-3
Band 1 Bottom	Commentary on the nature of relationships in different cultures is muddled and mainly irrelevant . The material may be wholly irrelevant .	2-0

3**Total for this question: 24 marks**

Outline and evaluate research studies relating to media influences on anti-social behaviour. (24 marks)

AO1

There are many studies on media influences on anti-social behaviour, such as the St Helena project, Leyer's residential delinquents, and Rowell's cross-cultural work. Description of any aspects of these studies can count as AO1. Candidates may choose to present *explanations* of media influences, such as disinhibition and desensitisation, but the focus of the question is on studies, and explanations cannot receive AO1 credit. Candidates may introduce studies not directly concerning the media but with potential relevance, such as Bandura's Bobo dolls. These should be credited in so far as they are related to media influences. If there is no explicit link to media influences, such material cannot move out of Band 1.

AO2

Studies can be evaluated at various levels. Methodological limitations are likely to be popular. Comments on ecological validity, determinism, cultural bias etc should be contextualised and explained to move out of band 1 for AO2. Candidates should also be able to comment on whether findings support or contradict media effects on anti-social behaviour, and perhaps provide some general summary of the field. This could include the views of eg Cumberbatch and Livingstone criticising the research evidence in this field. Support for *explanations* would also be effective AO2.

It is unlikely but possible that studies on media influences on pro-social behaviour could be used as creditable AO2, but only if they are explicitly shaped towards the question.

Partial performance criteria are not included in the mark bands. Instead allocation of answers to mark bands should be based on an assessment of their breadth and/or depth.

AO1: Outline of research studies relating to media influences on anti-social behaviour.

Band	Mark Allocation	Marks
Band 3 Top	Outline of research studies relating to media influences on anti-social behaviour 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	Outline of research studies relating to media influences on anti-social behaviour 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	Outline of research studies relating to media influences on anti-social behaviour 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	Outline of research studies relating to media influences on anti-social behaviour 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	Outline of research studies relating to media influences on anti-social behaviour 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	Outline of research studies relating to media influences on anti-social behaviour is just discernible or mainly irrelevant . It is weak and shows muddled understanding. The answer may be wholly irrelevant .	2-0

AO2: Evaluation of research studies relating to media influences on anti-social behaviour.

Band	Mark Allocation	Marks
Band 3 Top	Evaluation of research studies relating to media influences on anti-social behaviour 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 studies relating to media influences on anti-social behaviour 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 studies relating to media influences on anti-social behaviour is limited . The material is used in a reasonably effective manner and shows reasonable elaboration .	8-7
Band 2 Bottom	Evaluation of studies relating to media influences on anti-social behaviour is basic . The material is used in a restricted manner and shows some evidence of elaboration .	6-5
Band 1 Top	Evaluation of research studies relating to media influences on anti-social behaviour is superficial and rudimentary . The material is not used effectively and shows no evidence of elaboration .	4-3
Band 1 Bottom	Evaluation of studies relating to media influences on anti-social behaviour is muddled and mainly irrelevant . The material may be wholly irrelevant .	2-0

SECTION B: PHYSIOLOGICAL PSYCHOLOGY**4****Total for this question: 24 marks**

Discuss lateralisation of function in the cerebral cortex.
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<i>(24 marks)</i>

AO1

For their description of functional lateralisation, candidates are likely to focus on language and possibly visuo-spatial skills. The work of Sperry on the split-brain is central to this area, but there are many other sources of material such as studies in normals using divided field and dichotic listening techniques, studies on unilateral brain damage, and the Wada test for laterality of speech. More recent scanning work may also be quoted. Handedness dominance is also an aspect of cerebral laterality. Although unlikely, candidates may refer to work in non-human animals where lateralisation of communication systems has occasionally been found. Comparison of human lateralisation with non-lateralisation in animals would be AO2 material.

References to the localisation of function debate would only earn credit if explicitly shaped to the question of laterality.

AO2

There are a number of ways in which candidates may earn AO2 credit. Evaluation of particular studies, such as Sperry's work with the unusual split-brain patients, is likely to be popular. As mentioned above, comparison of laterality patterns between humans and non-human animals would be an excellent point of commentary, and this would include reference to the evolution of asymmetries. Some reference to the laterality of higher cognitive functions versus the symmetry seen in sensory and motor systems would be impressive.

Alternatively, candidates may introduce variations in laterality patterns associated with, for instance, gender and handedness. In an area where AO2 marks can be hard to earn, such descriptions can count as commentary and be credited as AO2.

AO1: Description of lateralisation of function in the cerebral cortex.

Band	Mark Allocation	Marks
Band 3 Top	Description of lateralisation of function in the cerebral cortex 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 lateralisation of function in the cerebral cortex 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 lateralisation of function in the cerebral cortex 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 lateralisation of function in the cerebral cortex 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 lateralisation of function in the cerebral cortex 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 lateralisation of function in the cerebral cortex is just discernible or mainly irrelevant . It is weak and shows muddled understanding. The answer may be wholly irrelevant .	2-0

AO2: Commentary on lateralisation of function in the cerebral cortex.

Band	Mark Allocation	Marks
Band 3 Top	Commentary on lateralisation of function in the cerebral cortex 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	Commentary on lateralisation of function in the cerebral cortex is slightly limited . The material is used in an effective manner and shows evidence of appropriate selection and elaboration .	10-9
Band 2 Top	Commentary on lateralisation of function in the cerebral cortex is limited . The material is used in a reasonably effective manner and shows reasonable elaboration .	8-7
Band 2 Bottom	Commentary on lateralisation of function in the cerebral cortex is basic . The material is used in a restricted manner and shows some evidence of elaboration .	6-5
Band 1 Top	Commentary on lateralisation of function in the cerebral cortex is superficial and rudimentary . The material is not used effectively and shows no evidence of elaboration .	4-3
Band 1 Bottom	Commentary on lateralisation of function in the cerebral cortex is muddled and mainly irrelevant . The material may be wholly irrelevant .	2-0

5

Total for this question: 24 marks

Discuss the role of endogenous pacemakers **and** exogenous zeitgebers in biological rhythms. (24 marks)

AO1

A *general* but accurate description of the role of endogenous pacemakers and exogenous zeitgebers in biological rhythms would earn AO1 marks. However, description of biological rhythms per se is not credit-worthy, but may earn marks if used explicitly to illustrate the underlying control of biological rhythms. Description of the brain mechanisms underlying endogenous pacemakers and/or the interaction with zeitgebers (eg light) would be directly relevant to the question.

Candidates are likely to base their answers on the very many studies on the roles of endogenous pacemakers and exogenous zeitgebers in controlling biological rhythms. These range from a variety of isolation studies in humans, work with pheromones and the menstrual cycle, to invasive work with the supra-chiasmatic nucleus in non-human animals. The key to AO1 marks will be the *accuracy* with which candidates describe the studies and show their *understanding* of how the results relate to the role of endogenous pacemakers and exogenous zeitgebers in biological rhythms.

AO2

Description of research studies and findings will be credited as AO1, unless clearly topped and tailed as AO2. However, *commentary* on the findings and their relevance to the respective roles of pacemakers and zeitgebers can earn AO2 credit. For example, a simple description of the Siffre study and findings would be AO1 material, while a clear statement of the conclusions and implications would be AO2.

Candidates may introduce material on the disruption of biological rhythms, such as jet lag and seasonal affective disorders. To earn credit, such material must be *explicitly* shaped to the question. More relevant would be general commentary on the relative roles of pacemakers and zeitgebers, for example the increasing significance of electric lighting during the last 100 years.

Note that discussion of both endogenous pacemakers and exogenous zeitgebers is required, and answers that are restricted to only one can receive a maximum of 8 marks for AO1 and 8 marks for AO2. Candidates are *not* required to discuss more than one biological rhythm.

AO1: Outline of the role of endogenous pacemakers and exogenous zeitgebers.

Band	Mark Allocation	Marks
Band 3 Top	Description of the role of endogenous pacemakers and exogenous zeitgebers is substantial . It is accurate and well detailed . The organisation and structure of the answer are coherent , with substantial evidence of breadth and depth and a reasonable balance between the two elements.	12-11
Band 3 Bottom	Description of the role of endogenous pacemakers and exogenous zeitgebers is slightly limited . It is accurate and reasonably detailed . The organisation and structure of the answer are coherent , with evidence of breadth and depth and a reasonable balance between the two elements.	10-9
Band 2 Top	Description of the role of endogenous pacemakers and exogenous zeitgebers 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, though there may be an imbalance in coverage of the two elements. <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 the role of endogenous pacemakers and exogenous zeitgebers 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, though there may be an imbalance in coverage of the two elements. <i>Partial performance is limited, generally accurate and reasonably detailed.</i>	6-5
Band 1 Top	Description of the role of endogenous pacemakers and exogenous zeitgebers 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 elements. <i>Partial performance is basic, generally accurate and lacking detail.</i>	4-3
Band 1 Bottom	Description of the role of endogenous pacemakers and exogenous zeitgebers is just discernible or mainly irrelevant . It is weak and shows muddled understanding. The answer may be wholly irrelevant . <i>Partial performance is rudimentary and sometimes flawed, with little focus on the question.</i>	2-0

AO2: Evaluation of the role of endogenous pacemakers and exogenous zeitgebers.

Band	Mark Allocation	Marks
Band 3 Top	Evaluation of the role of endogenous pacemakers and exogenous zeitgebers 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 the role of endogenous pacemakers and exogenous zeitgebers 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 the role of endogenous pacemakers and exogenous zeitgebers is limited . The material is used in a reasonably effective manner and shows reasonable elaboration . <i>Partial performance is thorough, highly effective and coherent (top of band) or slightly limited and effective (bottom of band).</i>	8-7
Band 2 Bottom	Evaluation of the role of endogenous pacemakers and exogenous zeitgebers is basic . The material is used in a restricted manner and shows some evidence of elaboration . <i>Partial performance is limited and reasonably effective, with reasonable elaboration.</i>	6-5
Band 1 Top	Evaluation of the role of endogenous pacemakers and exogenous zeitgebers is superficial and rudimentary . The material is not used effectively and shows no evidence of elaboration . <i>Partial performance is basic and restricted, with some evidence of elaboration.</i>	4-3
Band 1 Bottom	Evaluation of the role of endogenous pacemakers and exogenous zeitgebers is muddled and mainly irrelevant . The material may be wholly irrelevant . <i>Partial performance is rudimentary and sometimes flawed, with little focus on the question.</i>	2-0

6**Total for this question: 24 marks**

(a) Outline and evaluate one physiological theory of emotion (eg James–Lange theory). (12 marks)

(b) Outline and evaluate one combined physiological/psychological theory of emotion (eg Schachter’s cognitive labelling theory). (12 marks)
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(a) AO1 and AO2

Candidates choosing to discuss the James–Lange theory are likely to vary in the degree of accurate description of the role of physiological feedback. Evaluation may focus on Cannon’s systematic points of criticism, or on more general points such as the minimal role given to cognitive processes or the historical nature of the work. More difficult would be candidates who introduce material on brain structures and emotion. Although separate on the specification, some more recent models of emotion combine elements of brain structure with elements of feedback, such as Ekman’s facial feedback model or Damasio’s somatic marker hypothesis (this has been mentioned in previous sittings of this examination). Such mixed models are acceptable, but answers focusing on brain structures such as the limbic system and amygdala would not earn marks.

(b) AO1 and AO2

Schachter’s cognitive labelling theory is complex, and answers will vary in detail and accuracy. Many will contain descriptions of the classic Schachter and Singer study (S and S study). Unless used explicitly as AO2 support for the model, it should be credited as *illustrating* the model and earn AO1 marks. The S and S study itself can be criticised, and, given its central status in the model, this would be acceptable AO2. Further evaluation could include research support (eg ‘love on a suspension bridge’) or general discussion of the role of arousal in emotional states.

In either part (a) or part (b), alternative models/approaches may be used as AO2. To earn marks, they must be part of focused and sustained commentary relevant to the question asked.

AO1 (Parts a and b): *Outline of one theory of emotion.*

Band	Mark Allocation	Marks
Band 3 Top	Outline of one theory of emotion is substantial . It is accurate and well detailed . The organisation and structure of the answer are coherent , with substantial evidence of breadth and depth.	6
Band 3 Bottom	Outline of one theory of emotion is slightly limited . It is accurate and reasonably detailed . The organisation and structure of the answer are coherent , with evidence of breadth and depth.	5
Band 2 Top	Outline of one theory of emotion is limited . It is generally accurate and reasonably detailed . The organisation and structure of the answer are reasonable , with increasing evidence of breadth and/or depth.	4
Band 2 Bottom	Outline of one theory of emotion 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.	3
Band 1 Top	Outline of one theory of emotion is rudimentary and sometimes flawed . There is some focus on the question. The organisation and structure of the answer are reasonable .	2
Band 1 Bottom	Outline of one theory of emotion is just discernible or mainly irrelevant . It is weak and shows muddled understanding. The answer may be wholly irrelevant .	1-0

AO2 (Parts a and b): *Evaluation of one theory of emotion.*

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

SECTION C: COGNITIVE PSYCHOLOGY

7

Total for this question: 24 marks

Outline and evaluate one or more explanations of divided attention.
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(24 marks)

AO1

Explanations of divided attention include Kahneman's capacity model, Allport's modular theory, and revised capacity models. Practical explanations of divided attention can also include task variables such as difficulty, similarity of tasks, or practice effects, and reference to these can be credited as AO1, whether or not they are embedded in an overarching explanation such as the capacity model.

Divided attention refers to the ability to split attention between more than one task, and is therefore distinguished from selective ('focused') attention. It is possible, given the overlaps between divided and selective attention and between automatic and controlled processing, that material from these areas could be made relevant to the question. However, the relevance would have to be explicit for marks to be earned.

AO2

The most accessible evaluation is in terms of research studies. Simple description of relevant studies with little effort to use them explicitly as *effective* evaluation/commentary can earn a maximum of 4 marks for AO2. Effective commentary would involve *assessing* the explanations in terms of research findings. Comparison with alternative models would also be an effective way of accessing AO2 marks, as would general commentary on the field, eg distinctions between divided and selective attention.

AO1: Outline of one or more explanations of divided attention.

Band	Mark Allocation	Marks
Band 3 Top	Outline of one or more explanations of divided attention 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	Outline of one or more explanations of divided attention 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	Outline of one or more explanations of divided attention 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	Outline of one or more explanations of divided attention 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	Outline of one or more explanations of divided attention 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	Outline of one or more explanations of divided attention is just discernible or mainly irrelevant . It is weak and shows muddled understanding. The answer may be wholly irrelevant .	2-0

AO2: Evaluation of one or more explanations of divided attention.

Band	Mark Allocation	Marks
Band 3 Top	Evaluation of one or more models of divided attention 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 models of divided attention 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 models of divided attention 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 models of divided attention 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 models of divided attention 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 models of divided attention is muddled and incomplete . The material may be wholly irrelevant .	2-0

8**Total for this question: 24 marks**

Discuss one or more theories of visual perception.	<i>(24 marks)</i>
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AO1

It is probable that candidates will choose either or both of Gregory's constructivist theory and Gibson's bottom-up approach. AO1 credit will be earned through accurate description of the theory/theories. Candidates are not restricted to these theories, but may instead introduce alternatives such as the work of Neisser or Marr. Candidates may introduce material from other areas of this part of the specification, such as perceptual development. *Theories* derived from such areas can legitimately be considered theories of visual perception and earn AO1 credit, but *descriptions* of perceptual development are not theories and cannot receive credit. A particular issue is the nature/nurture debate in relation to visual perception. As a debate on a particular aspect of visual perception, these two theories are acceptable as answers to this question. Theories of perception of colour, form and motion are relevant. Where studies are not presented explicitly as AO2, they may earn AO1 marks as illustrating a model or theory.

AO2

Candidates can access AO2 marks in various ways. Research support would be the most straightforward, while general commentary on the explanatory power of a theory covering, for instance, the possible role of motivational factors or the problem of explaining visual illusions, would also be creditworthy. If two or more theories are presented, general commentary could include direct comparison, but explicit comparison is not required for marks across the range. Candidates who discuss nature and/or nurture in relation to visual perception would have access to a wide range of research evidence.

AO1: Outline of one or more theories of visual perception.

Band	Mark Allocation	Marks
Band 3 Top	Outline of one or more theories of visual perception 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	Outline of one or more theories of visual perception 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	Outline of one or more theories of visual perception 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	Outline of one or more theories of visual perception 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	Outline of one or more theories of visual perception 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	Outline of one or more theories of visual perception is just discernible or mainly irrelevant . It is weak and shows muddled understanding. The answer may be wholly irrelevant .	2-0

AO2: Evaluation of one or more theories of visual perception.

Band	Mark Allocation	Marks
Band 3 Top	Evaluation of one or more theories of visual perception 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 visual perception 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 visual perception 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 visual perception 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 visual perception 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 visual perception is muddled and mainly irrelevant . The material may be wholly irrelevant .	2-0

9**Total for this question: 24 marks**

Critically consider research into social and/or cultural aspects of language use.	(24 marks)
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AO1

Although this is potentially a broad question, candidates are likely to emphasise the work of Bernstein on restricted and elaborated codes and Labov's studies on black English vernacular. As the term 'research' is used, it is legitimate for candidates to describe theories and explanations as well as research studies. Relevant studies described but not used explicitly as evaluation may be awarded AO1 credit if illustrating explanations.

Much research in language involves social and cultural issues. Examples on the specification include research into linguistic relativity and Vygotsky's ideas on social aspects of language development. Such material is creditworthy *if* social and cultural issues are the focus.

AO2

AO2 marks may be accessed in various ways, including research support, evaluation of critical research studies (eg Labov's criticisms of Bernstein's work), explanatory power of explanations and theories, and general comments on the role of social/cultural factors in language use. This might lead to the introduction of alternative approaches/models (eg genetic aspects). These may earn AO2 marks across the range if used as part of sustained and effective commentary, but if simply *described* as alternatives AO2 marks would not go beyond Band 1.

AO1: Description of research into social and/or cultural aspects of language use.

Band	Mark Allocation	Marks
Band 3 Top	Description of research into social and/or cultural aspects of language use 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 social and/or cultural aspects of language use 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 social and/or cultural aspects of language use 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 social and/or cultural aspects of language use 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 social and/or cultural aspects of language use 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 social and/or cultural aspects of language use is just discernible or mainly irrelevant . It is weak and shows muddled understanding. The answer may be wholly irrelevant .	2-0

AO2: Evaluation of research into social and/or cultural aspects of language use.

Band	Mark Allocation	Marks
Band 3 Top	Evaluation of research into social and/or cultural aspects of language use 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 social and/or cultural aspects of language use 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 social and/or cultural aspects of language use is limited . The material is used in a reasonably effective manner and shows reasonable elaboration .	8-7
Band 2 Bottom	Evaluation of research into social and/or cultural aspects of language use 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 social and/or cultural aspects of language use 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 social and/or cultural aspects of language use is muddled and mainly irrelevant . The material may be wholly irrelevant .	2-0

SECTION D: DEVELOPMENTAL PSYCHOLOGY**10****Total for this question: 24 marks**

Discuss factors associated with the development of measured intelligence.

*(24 marks)***AO1**

‘Development of measured intelligence’ is a broad term referring to both background factors such as environmental, cultural and genetic influences. There is no requirement for candidates to cover all of these areas, and, given the complexity of the factors involved, there are *no* partial performance issues with this question.

AO1 marks can be earned by description of relevant factors. Research studies are likely to be described. If used to *illustrate* the relevance of factors, these qualify for AO1 marks; if used explicitly to *evaluate* the significance of factors, they should be assessed under AO2 criteria.

Material from other areas, such as cognitive development, may earn marks insofar as it is ‘shaped’ to the question, ie related to the development of measured intelligence.

AO2

The role of research studies has already been mentioned in assessing the relative role of various factors in the development of measured intelligence test performance. It would also be legitimate for candidates to assess the *relative* roles of factors, such as the nature/nurture debate, in relation to the development of measured intelligence. However, to be fully effective, such debate must be developed as part of the debate on environmental and genetic influences, and not introduced as an issue in its own right. Other general commentary could include factors intrinsic to the measurement tests themselves, such as cultural and gender bias, issues of test validity and reliability, and perhaps a consideration of the nature of intelligence itself, an *assessment* of the validity and reliability of intelligence tests, and perhaps a consideration of the nature of intelligence itself.

AO1: Description of factors associated with the development of measured intelligence.

Band	Mark Allocation	Marks
Band 3 Top	Description of factors associated with the development of measured 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 factors associated with the development of measured 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 factors associated with the development of measured 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 factors associated with the development of measured 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 factors associated with the development of measured 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 factors associated with the development of measured intelligence is just discernible or mainly irrelevant . It is weak and shows muddled understanding. The answer may be wholly irrelevant .	2-0

AO2: Commentary on factors associated with the development of measure intelligence.

Band	Mark Allocation	Marks
Band 3 Top	Commentary on factors associated with the development of measured 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	Commentary on factors associated with the development of measured 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	Commentary on factors associated with the development of measured intelligence is limited . The material is used in a reasonably effective manner and shows reasonable elaboration .	8-7
Band 2 Bottom	Commentary on factors associated with the development of measured intelligence is basic . The material is used in a restricted manner and shows some evidence of elaboration .	6-5
Band 1 Top	Commentary on factors associated with the development of measured intelligence is superficial and rudimentary . The material is not used effectively and shows no evidence of elaboration .	4-3
Band 1 Bottom	Commentary on factors associated with the development of measured intelligence is muddled and mainly irrelevant . The material may be wholly irrelevant .	2-0

11

Total for this question: 24 marks

Critically consider two or more explanations of personality development.

(24 marks)

AO1

The specification refers to psychodynamic (eg Freud and Erikson) and social learning approaches (eg Bandura and Mischel), and these are likely to form the bulk of answers. The key issue for AO1 will be the extent to which candidates address the issue of 'personality'. Answers that simply describe theories with no reference to personality development will be restricted to a maximum of 4 marks for AO1. This may be a particular problem with social learning approaches, where to move out of Band 1, candidates must *explain* the relevance of eg vicarious learning and reciprocal determinism to personality development. If the situationist approach of Mischel is described, this must be linked to personality *development* to earn marks.

Candidates must give two or more explanations, and examiners should be sensitive to depth/breadth trade-offs in awarding marks.

AO2

Evaluation may involve various levels. Individual studies can be assessed as supporting, or not, a particular approach, while methodological criticisms would be relevant as they determine the validity, or not, of findings. General criticisms of Freud's work (participants, testability etc) would also be creditable as they would undermine his whole theoretical approach. More effective would be comments made explicitly relevant to personality development, such as gender bias and implications for single parent families. Comparison of the effectiveness of theories in explaining personality development would earn AO2 marks, while general commentary, such as neglecting genetic factors, could also be effective. Explicit comparison of explanations is not required for marks across the range, but would be an effective way of accessing AO2 marks.

Candidates are required to consider two or more explanations, and those describing only one and/or evaluating only one are showing partial performance and are limited to a maximum of 8 marks for AO1 and 8 marks for AO2. Candidates outlining three or more explanations but evaluating only two of them are *not* showing partial performance.

AO1: Outline of two or more explanations of personality development.

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

AO2: Evaluation and commentary on two or more explanations of personality development.

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

12**Total for this question: 24 marks**

Outline and evaluate **two or more** theories of development in early adulthood **and/or** middle adulthood.
(24 marks)

AO1

Candidates are likely to select from the theories of Erikson (eight stages of lifespan development), Levinson (seasons of a man's life), and/or Gould (evolution of adult consciousness). Outlines should be accurate and detailed, although there will inevitably be depth/breadth trade-offs, depending upon the number of theories covered. Boundaries between adolescence and late adulthood and early/middle adulthood can be fuzzy. Material clearly related to younger or older stages cannot earn marks (unless the significance for early/middle adulthood is explicit), but with ambiguous material, benefit should go to the candidate.

General theories of development, such as Piaget and Freud, can only earn AO1 marks to the extent that they are explicitly linked to development in early and/or middle adulthood.

AO2

Evaluation can be at the level of research support, with methodological limitations of studies creditable as undermining the validity of any findings. More general evaluation may consider the scope and inconsistencies of theories. A particular debate focuses on the existence or not of crises in adult development, possibly in the transitions between different states. Although not required for marks across the range, comparison of theories in terms of, for example, how well they explain research findings, or explain the existence (or not) of life crises, would be an effective way of accessing AO2 marks.

Candidates are required to outline and evaluate two or more theories. Candidates presenting only one are exhibiting partial performance and can earn a maximum of 8 marks for AO1 and 8 marks for AO2.

AO1: Outline of two or more theories of development in early adulthood and/or middle adulthood.

Band	Mark Allocation	Marks
Band 3 Top	Outline of two or more theories of development in early adulthood 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 and a reasonable balance between the theories.	12-11
Band 3 Bottom	Outline of two or more theories of development in early adulthood 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 and a reasonable balance between the theories.	10-9
Band 2 Top	Outline of two or more theories of development in early adulthood 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, though there may be an imbalance in coverage of the 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 or more theories of development in early adulthood 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, though there may be an imbalance in coverage of the theories. <i>Partial performance is limited, generally accurate and reasonably detailed.</i>	6-5
Band 1 Top	Outline of two or more theories of development in early adulthood 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 , with some coverage of at least two theories. <i>Partial performance is basic, generally accurate and lacking detail.</i>	4-3
Band 1 Bottom	Outline of two or more theories of development in early adulthood and/or middle adulthood is just discernible or mainly irrelevant . It is weak and shows muddled understanding. The answer may be wholly irrelevant . <i>Partial performance is rudimentary and sometimes flawed, with little focus on the question.</i>	2-0

AO2: Evaluation of two or more theories of development in early adulthood and/or middle adulthood.

Band	Mark Allocation	Marks
Band 3 Top	Evaluation of two or more theories of development in early adulthood 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 two or more theories of development in early adulthood 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 two or more theories of development in early adulthood and/or middle adulthood is limited . The material is used in a reasonably effective manner and shows reasonable elaboration . <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>	8-7
Band 2 Bottom	Evaluation of two or more theories of development in early adulthood and/or middle adulthood is basic . The material is used in a restricted manner and shows some evidence of elaboration . <i>Partial performance is limited with reasonable elaboration, and reasonably effective use of material.</i>	6-5
Band 1 Top	Evaluation of two or more theories of development in early adulthood and/or middle adulthood 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 theories of development in early adulthood and/or middle adulthood is muddled and mainly irrelevant . The material may be wholly irrelevant . <i>Partial performance is superficial with no elaboration; not used effectively.</i>	2-0

SECTION E: COMPARATIVE PSYCHOLOGY**13****Total for this question: 24 marks**

Outline and evaluate evidence for intelligence in non-human animals.
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(24 marks)

AO1

Creditworthy examples of intelligence in non-human animals in the specification are self-recognition (Theory of Mind) and Machiavellian intelligence, and candidates are likely to outline these. However, intelligence is a broad concept and many other examples could be relevant to this question. Simple forms of learning such as habituation and conditioning, or examples from other areas of the specification such as social learning, navigation, complex signalling systems, or language acquisition, could all be justified as examples of learning/intelligence. The question does not even exclude evidence on brain size and evolutionary approaches. However, answers focusing entirely on just one of these examples are likely to be limited/basic, and are unlikely to access the higher mark bands for AO1 or AO2. The key will be the extent to which the candidate *justifies* his/her use of examples as *relevant* to the question, ie there must be an explicit consideration of how the example relates to intelligence. If intelligence is not mentioned, no marks can be awarded.

AO2

There would be a variety of opportunities for evaluation and commentary. These could include the concept of intelligence and how it relates to species-specific behaviours, problems assessing intelligence in non-human species (both methodological and conceptual), and interpretation of results, eg the debate on the presence or not of theory of mind in non-human primates.

Some types of material, such as the evolution of brain size, may be used as AO1 *evidence*, or as AO2 *support* for a particular view. Unless it is absolutely explicit, examiners should interpret material in the candidate's favour.

The question specifies 'non-human' animals, so evidence from work on intelligence with humans cannot receive AO1 credit. However, if used as part of AO2 comparative analysis and evaluation, such material may earn AO2 marks.

AO1: Outline of evidence for intelligence in non-human animals.

Band	Mark Allocation	Marks
Band 3 Top	Outline of evidence for intelligence in non-human animals 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	Outline of evidence for intelligence in non-human animals 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	Outline of evidence for intelligence in non-human animals 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	Outline of evidence for intelligence in non-human animals 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	Outline of evidence for intelligence in non-human animals 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	Outline of evidence for intelligence in non-human animals is just discernible or mainly irrelevant . It is weak and shows muddled understanding. The answer may be wholly irrelevant .	2-0

AO2: Evaluation of evidence for intelligence in non-human animals.

Band	Mark Allocation	Marks
Band 3 Top	Evaluation of evidence for intelligence in non-human animals 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 evidence for intelligence in non-human animals 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 evidence for intelligence in non-human animals is limited . The material is used in a reasonably effective manner and shows reasonable elaboration .	8-7
Band 2 Bottom	Evaluation of evidence for intelligence in non-human animals is basic . The material is used in a restricted manner and shows some evidence of elaboration .	6-5
Band 1 Top	Evaluation of evidence for intelligence in non-human animals is superficial and rudimentary . The material is not used effectively and shows no evidence of elaboration .	4-3
Band 1 Bottom	Evaluation of evidence for intelligence in non-human animals is muddled and mainly irrelevant . The material may be wholly irrelevant .	2-0

14**Total for this question: 24 marks**

Discuss research studies of language in non-human animals.
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(24 marks)

AO1

AO1 should consist of *descriptions* of research studies of language in non-human animals, including procedures and findings/conclusions. Although this is a broad question, candidates are likely to focus on attempts to teach language to animals and, to a lesser extent, studies of natural animal language (both examples given in the specification). Teaching language to non-human animals is a well-established area and candidates can be expected to have access to a number of examples. These are likely to be the classic primate studies, although parrots and Clever Hans could earn marks if used effectively. Answers will vary in the degree of accuracy and detail, as many candidates become confused over exactly what techniques were used where. American sign language was used with the chimpanzees Washoe and Nim and the gorilla Koko, while the symbol keyboard was used with the bonobo chimpanzee Kanzi.

Studies of natural animal language are likely to include the dance of the honeybees and/or vervet monkey species-specific calls. Again, accuracy and detail will be critical.

AO2

AO2 may include methodological evaluations of the studies themselves and also the implications of such studies for non-human animal language. Better candidates are likely to frame their higher-level evaluation around Hockett's language design features, or at least some of the features, and discuss what constitutes a language. In relation to studies of language acquisition, candidates may consider alternative explanations such as subconscious cueing by the trainers, and in this context Terrace's work with Nim is central. General commentary could include a consideration of the evolution of language mechanisms and whether innate dispositions are essential for language acquisition. Studies of language in humans may earn AO2 credit if used as part of sustained and effective commentary, but otherwise would not earn marks.

Although unlikely, answers may focus entirely on a single example such as Washoe. There is no partial performance criterion on this question, and, if written in depth and with accurate detail, such answers can earn marks across the scale.

AO1: Description of research studies of language in non-human animals.

Band	Mark Allocation	Marks
Band 3 Top	Description of research studies of language in non-human animals 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 studies of language in non-human animals 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 studies of language in non-human animals 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 studies of language in non-human animals 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 studies of language in non-human animals 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 studies of language in non-human animals is just discernible or mainly irrelevant . It is weak and shows muddled understanding. The answer may be wholly irrelevant .	2-0

AO2: Evaluation of research studies of language in non-human animals.

Band	Mark Allocation	Marks
Band 3 Top	Evaluation of research studies of language in non-human animals 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 studies of language in non-human animals 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 studies of language in non-human animals is limited . The material is used in a reasonably effective manner and shows reasonable elaboration .	8-7
Band 2 Bottom	Evaluation of research studies of language in non-human animals is basic . The material is used in a restricted manner and shows some evidence of elaboration .	6-5
Band 1 Top	Evaluation of research studies of language in non-human animals is superficial and rudimentary . The material is not used effectively and shows no evidence of elaboration .	4-3
Band 1 Bottom	Evaluation of research studies of language in non-human animals is muddled and mainly irrelevant . The material may be wholly irrelevant .	2-0

15

Total for this question: 24 marks

Discuss the relationship between human reproductive behaviour and sexual selection. (24 marks)
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AO1

There is a range of human reproductive behaviours influenced by or linked to sexual selection. These include attraction and mate choice, mate competition, sexual dimorphism, jealousy, hidden ovulation, mating relationships, and parental investment. AO1 marks are likely to be earned by a description of these relationships, with answers varying in accuracy and detail.

The question is on *relationships* rather than *explanations*. However, candidates may refer to *explanations* of observed relationships between sexual selection and human reproductive behaviour, perhaps using the selfish gene or other evolutionary approaches. Such material can qualify for AO1 *or* AO2 credit depending on the extent to which it is free-standing (AO1) or extending a discussion of the relationships themselves (AO2). As long as credit is given, and material is not double-credited, examiners should use their discretion.

The question concerns *human* reproductive behaviour. Candidates who draw on the extensive studies of eg mate choice in non-human animals may, however, earn AO1 marks if such material is *explicitly* linked to human reproductive behaviours. If no link is made, such material cannot earn marks.

AO2

Evaluation of the relationship between human reproductive behaviour and sexual selection can be achieved in various ways. Of importance would be the degree of support (or not) from research studies and relevant methodological criticism of these studies, which may reduce the validity of findings. More general commentary could include cross-species comparisons, a consideration of cultural variations in human reproductive behaviour, or the increasing role of cognitive and social factors in influencing patterns of, for instance, mate choice. Use of explanations of observed relationships as AO2 material is covered above.

AO1: Description of the relationship between human reproductive behaviour and sexual selection.

Band	Mark Allocation	Marks
Band 3 Top	Description of the relationship between human reproductive behaviour and sexual selection 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 the relationship between human reproductive behaviour and sexual selection 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 the relationship between human reproductive behaviour and sexual selection 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 the relationship between human reproductive behaviour and sexual selection 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 the relationship between human reproductive behaviour and sexual selection 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 the relationship between human reproductive behaviour and sexual selection is just discernible or mainly irrelevant . It is weak and shows muddled understanding. The answer may be wholly irrelevant .	2-0

AO2: Evaluation of the relationship between human reproductive behaviour and sexual selection.

Band	Mark Allocation	Marks
Band 3 Top	Evaluation of the relationship between human reproductive behaviour and sexual selection 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 the relationship between human reproductive behaviour and sexual selection 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 the relationship between human reproductive behaviour and sexual selection is limited . The material is used in a reasonably effective manner and shows reasonable elaboration .	8-7
Band 2 Bottom	Evaluation of the relationship between human reproductive behaviour and sexual selection is basic . The material is used in a restricted manner and shows some evidence of elaboration .	6-5
Band 1 Top	Evaluation of the relationship between human reproductive behaviour and sexual selection is superficial and rudimentary . The material is not used effectively and shows no evidence of elaboration .	4-3
Band 1 Bottom	Evaluation of the relationship between human reproductive behaviour and sexual selection is muddled and mainly irrelevant . The material may be wholly irrelevant .	2-0

A LEVEL/A2 UNIT 4: ASSESSMENT GRID

Question Number	AO1	AO2
1	12	12
2	12	12
3	12	12
4	12	12
5	12	12
6(a)	6	6
6(b)	6	6
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%	