AQA

ASSESSMENT and
QUALIFICATIONS
ALLIANCE

General Certificate of Education

Psychology 6181
Specification A

Unit 4 (PYA4)

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

Mark Scheme

2008 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.

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QUALITY OF WRITTEN COMMUNICATION
(QoWC)

Band 3	The work is characterised by some or all of the following: • 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: • 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: • 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 & 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**

Outline and evaluate **one or more** theories of the origins of prejudice.   *(24 marks)*

AO1

AO1 requires the candidate to outline one or more theories of the origins of prejudice. These could include theories based on personality, such as Adorno's Authoritarian personality, or more socially-based approaches such as realistic conflict theory (eg Sherif's Robber cave studies) or social identity theory. Candidates who choose to cover more than one theory will clearly show a breadth/depth trade-off.
This is an area where candidates are likely to use studies as *illustrations* of theories, especially, for instance, in relation to realistic conflict theory. Unless studies are explicitly used as AO2 they should be considered for AO1 credit if genuinely adding to the outline of theories.

Material on the maintenance and reduction of prejudice is unlikely to be relevant. However studies in these areas *could* throw light on the origins of prejudice, and if used explicitly in this way can earn credit.

AO2

Evaluation of theories can be accomplished in various ways. Research evidence is a key area, especially if used as part of sustained and explicit evaluation. Other possibilities include the relevance of theories to social and cultural trends, and the use of alternative models to assess a target theory. If alternative models are introduced but not used as effective evaluation ie as part of sustained and focused commentary) they may still earn AO1 marks as additional theories of the origins of prejudice. However explicit comparison of alternative theories can be credited as AO2.

AO1: *Outline of one or more theories of the origins of prejudice.*

Band	Mark Allocation	Marks
Band 3 Top	Outline of one or more theories of the origins of prejudice 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 the origins of prejudice 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 the origins of prejudice 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 the origins of prejudice 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 the origins of prejudice 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 the origins of prejudice is **just discernible.** It is **weak and shows muddled** understanding. The answer may be **wholly irrelevant to the question's requirement.**	**2-0**

AO2: *Evaluation of one or more theories of the origins of prejudice.*

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

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

Discuss research into 'understudied relationships', such as gay and lesbian relationships, and
mediated (eg Internet and text) relationships.   *(24 marks)*

AO1

AO1 material should consist of descriptions of research into understudied relationships. Note
that the term 'research' includes both studies and theories, and this is particularly important in
areas such as mediated relationships (eg relationships based on the internet,
computer-mediated communication [CMC], or on mobile phones and text messaging), where
research studies, though increasing, are relatively unavailable. The reliance on theoretical
approaches and speculations does lead to the importance of distinguishing anecdote from
psychologically-informed material, and examiners must be sensitive to this issue.
Gay and lesbian relationships are likely to be a popular choice, and in these areas research is
more accessible and better candidates should be expected to describe any of the many studies
on the nature of such relationships.
Although answers are likely to focus on the examples in the question, other understudied
relationships, such as non-Western relationships or relationships in old age, are not excluded.
There is no plurality requirement in this question. Candidates may achieve the higher bands by
providing *depth* or *breadth.*

AO2

Sources of AO2 material may include use of research to support theoretical propositions, or
general commentary on the impact of eg social conventions, on the course and outcome of
understudied relationships, especially gay and lesbian. Candidates discussing CMC and
text-based relationships could include detailed commentary on the absence of non-verbal and
especially paralinguistic cues, and consequent effects on the nature and duration of such
relationships. A particularly effective approach would be to compare mediated relationships with
face-to-face ('f2f') relationships.

Given the variety of studies in this area it would also be appropriate for candidates to consider
different methodologies and methodological problems as part of their AO2 material.

AO1: *Description of research into understudied relationships.*

Band	Mark Allocation	Marks
Band 3 Top	Description of research into understudied relationships 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 understudied relationships 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 understudied relationships 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 understudied relationships 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 understudied relationships 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 understudied relationships is **just discernible.** It is **weak and shows muddled** understanding. The answer may be **wholly irrelevant to the question's requirement.**	**2-0**

AO2: *Evaluation of research into understudied relationships.*

Band	Mark Allocation	Marks
Band 3 Top	Evaluation of research into understudied 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 research into understudied 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 research into understudied relationships is **limited.** The material is used in a **reasonably effective** manner and shows **reasonable elaboration.**	**8-7**
Band 2 Bottom	Evaluation of research into understudied relationships 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 understudied relationships 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 understudied relationships is **muddled and mainly irrelevant.** The material may be **wholly irrelevant.**	**2-0**

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

| (a) | Outline **two** social psychological theories of aggression (eg social learning theory, deindividuation).   *(12 marks)* |

| (b) | Evaluate **one** of the social psychological theories of aggression that you have outlined in part (a).   *(12 marks)* |

AO1: (a)

Candidates are likely to outline the theories given as examples in the question, taken from the Specification. However alternatives, such as relative deprivation theory, are not excluded. There are a number of approaches that are more psychological than social psychological, such as frustration-aggression and psychoanalytic models. It is hard to draw a clear demarcation between obviously social theories and these approaches that are more individual but set in a social context. Therefore such approaches would be acceptable as relevant to the question. Theories emphasizing the evolutionary of biological nature of aggression would not be acceptable as AO1 material. General outlines of theories without specific reference to aggression can receive a maximum mark of 8 for AO1. To move into Band 3 answers need to be shaped towards aggression.
Studies (in particular, Bandura's Bobo dolls) that do not earn marks as part of sustained and effective evaluation (AO2) may earn AO1 marks if clearly adding to the outline of theories. To move out of Band 1 for AO1 or AO2 the *social psychological* aspects of Bandura's studies must be explicit.
Two theories are required. Candidates outlining only one are exhibiting partial performance and can receive a maximum of 8 marks for AO1.

AO2: (b)

Support from research studies would be an effective method of evaluating a theory. Evaluation of the studies themselves would be relevant as it directly affects the degree of support derived from studies; however such evaluation is unlikely to move out of Band 1 *unless* implications for the theory are clearly identified.
General commentary on eg the broad nature of aggression, cultural biases in research etc, could earn marks insofar as it is placed in the context of the identified target theory. Alternative theories, such as the second theory from part (a) or evolutionary/biological approaches may be introduced. To earn AO2 marks they must be part of sustained and effective commentary on the target theory rather than part of a broad and unfocused discussion.
Where both theories are evaluated both should be marked and the best AO2 mark recorded.

AO1: *(a) 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,** with **a fair** balance between the two theories. *Partial performance is substantial, accurate and well-detailed (top of band) or slightly limited, accurate and reasonably detailed (bottom of band).*	**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**, with a **fair** balance between the two theories. *Partial performance is limited, generally accurate and reasonably detailed.*	**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 organization and structure of the answer are **reasonable** with **some** coverage of two explanations. *Partial performance is basic, generally accurate and lacking detail.*	**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 irrelevant to the question's requirement or mainly irrelevant.** *Partial performance is rudimentary and sometimes flawed with little focus on the question.*	**2-0**

AO2: *(b) Evaluation of one social psychological theory of aggression.*

Band	Mark Allocation	Marks
Band 3 Top	Evaluation of one social psychological theory 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 one social psychological theory 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 one social psychological theory of aggression is **limited.** The material is used in a **reasonably effective** manner and shows **reasonable elaboration.**	**8-7**
Band 2 Bottom	Evaluation of one social psychological theory of aggression is **basic.** The material is used in a **restricted** manner and shows **some evidence of elaboration.**	**6-5**
Band 1 Top	Evaluation of one social psychological theory of aggression is **superficial and rudimentary.** The material is **not used effectively** and shows **no evidence of elaboration.**	**4-3**
Band 1 Bottom	Evaluation of one social psychological theory of aggression 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 the organisation of language in the brain.   (*24 marks*)

AO1

The Brain and Behaviour section of the Specification contains various topics potentially relevant to this question other than language organisation. These include localisation of function, distributed functions, cortical organisation, and lateralisation and functional asymmetries. As long as the focus is on *language,* any of this material could qualify for AO1 marks.
Central to the question would be the localisation model of language developed by Geschwind and others from the original work of Wernicke and Broca in the 19th century. Candidates should be able to describe centres for production and comprehension in the left hemisphere and pathways between them. Although this model has been refined over the years there is no requirement for reference to more recent models for marks across the range.

AO2

There are several potential sources of AO2 material. Candidates are likely to refer to some of the many classic case studies, especially those of Broca and Wernicke and perhaps the split-brain work of Sperry. Implications of findings for the organisation of language must be explicit for marks to move out of the bottom band. Relevant methodological evaluation of studies, given the problems for instance of using case studies of brain-damaged patients, could be an important source of AO2 credit.
Commentary on variations in basic language organisation associated with, for instance, gender and handedness would be an effective source of AO2, as would any reference to the evolution of language functions. The general reductionist approach of this area could also be a source of critical commentary.

AO1: *Description of the organisation of language in the brain.*

Band	Mark Allocation	Marks
Band 3 Top	Description of the organisation of language in the brain 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 organisation of language in the brain 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 organisation of language in the brain 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 organisation of language in the brain 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 organisation of language in the brain 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 organisation of language in the brain is **just discernible.** It is **weak and shows muddled** understanding. The answer may be **wholly irrelevant to the question's requirement or mainly irrelevant.**	**2-0**

AO2: *Commentary on the organisation of language in the brain.*

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

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

Discuss research relating to the nature of dreams (eg content, duration, type of dream).
(24 marks)

AO1

Candidates have a number of ways to answer this question. They may describe research into the *duration* and *content* of dreams (eg symbolic approaches such as Freud, or problem-solving perspectives such as Cartright's) or the different *kinds* of dreams (eg REM and non-REM dreams, or lucid dreams). This is also an opportunity for the stages of sleep to be relevantly described in relation to dreaming.

As the term *research* includes both studies and theories, it is acceptable for candidates to refer to theories of dreaming and research studies relating to these theories. However, for such material to be relevant candidates must make clear what these theories tell us about the *nature* of dreams, rather than simply addressing the *function* of dreaming. It is likely that even if candidates focus on the functions of dreams essays will contain some material relevant to their nature. Examiners should identify and credit this material accordingly. However, to reach Band 3 for AO1, material must be shaped towards the *nature* of dreams, with effective selection of materials.

AO2

Evaluation may take the form of alternative theoretical explanations for the phenomenom of dreams (eg content), or the extent of research support for a particular explanation or observation. The pioneering work of Dement and Kleitman on the stages of sleep, REM and dreaming would be directly relevant.
Candidates may refer to REM sleep and dreaming interchangeably. However the focus of the question is on *dreaming* and to receive credit for any references to REM (eg increased amounts in the newborn, links to learning and memory) candidates *must* maintain a clear focus on dreaming.
More general evaluation and commentary is acceptable as AO2 material, for instance the problems faced by laboratory studies of dreams (the artificial nature of the laboratory environment).

AO1: *Description of research relating to the nature of dreams.*

Band	Mark Allocation	Marks
Band 3 Top	Description of research relating to the nature of dreams 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 the nature of dreams 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 the nature of dreams 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 the nature of dreams 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 the nature of dreams 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 the nature of dreams is **just discernible.** It is **weak and shows muddled** understanding. The answer may be **wholly irrelevant to the question's requirement or mainly irrelevant.**	**2-0**

AO2: *Evaluation of research relating to the nature of dreams.*

Band	Mark Allocation	Marks
Band 3 Top	Evaluation of research relating to the nature of dreams 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 the nature of dreams 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 the nature of dreams 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 the nature of dreams 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 the nature of dreams 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 the nature of dreams is **muddled and mainly irrelevant.** The material may be **wholly irrelevant.**	**2-0**

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

Outline and evaluate **one or more** theories of motivation. *(24 marks)*

AO1

AO1 material should consist of an outline of one or more theories of motivation. 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, and it is important that candidates focus on the explanation of the *arousal and direction* of behaviour. With physiologically-based approaches studies on, for instance, hypothalamic lesions and feeding *must* be explicitly linked to homeostatic or drive-reduction *theories* to earn either AO1 (as illustrating theories) or AO2 marks. Similarly for studies on the peripheral mechanisms of feeding; there must be some explicit relevance to theories of motivation for marks to be credited.

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 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 motivation, 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: *Outline of one or more theories of motivation.*

Band	Mark Allocation	Marks
Band 3 Top	Outline 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	Outline 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	Outline 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	Outline 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	Outline 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	Outline of one or more theories of motivation is **just discernible.** It is **weak and shows muddled** understanding. The answer may be **wholly irrelevant to the question's requirement or mainly irrelevant.**	**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 mainly irrelevant.** The material may be **wholly irrelevant.**	**2-0**

SECTION C: COGNITIVE PSYCHOLOGY

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

Discuss explanations of pattern recognition (eg template and feature detection theories).
(24 marks)

AO1

AO1 description of explanations of pattern recognition can draw on models mentioned in the Specification (template and feature detection), or on any other relevant models, such as prototype theory. Although the Specification refers to Hubel & Wiesel's biological feature detection and top-down/bottom-up processing separately from theories of pattern recognition, these are all relevant to aspects of pattern recognition and are acceptable as answers to this question. However the emphasis must be on pattern recognition and not on other perceptual issues or general theories of perception (eg constructivist versus direct theories)

AO2

The most accessible route to AO2 credit would be the use of research findings. There are a large number of studies in this area and each of the major explanations can be linked to supporting and contradictory evidence. In addition explanations can be evaluated more generally, in terms of their flexibility and how well they explain various perceptual phenomena such as context effects.

If studies are used AO2 marks cannot move out of Band 1 unless the implications of findings for explanations are explicit.

Candidates are required to discuss at least two explanations of pattern recognition. Those covering only one are exhibiting partial performance and can receive a maximum of 8 marks for AO1 and 8 marks for AO2.

AO1: *Description of explanations of pattern recognition.*

Band	Mark Allocation	Marks
Band 3 Top	Description of explanations of pattern recognition 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 explanations of pattern recognition 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 explanations of pattern recognition 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. *Partial performance is substantial, accurate and well-detailed (top of band) or slightly limited, accurate and reasonably detailed (bottom of band)*	**8-7**
Band 2 Bottom	Description of explanations of pattern recognition 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. *Partial performance is limited, generally accurate and reasonably detailed.*	**6-5**
Band 1 Top	Description of explanations of pattern recognition is **rudimentary and sometimes flawed.** There is **some focus** on the question. The organisation and structure of the answer are **reasonable.** *Partial performance is basic, generally accurate and lacking detail.*	**4-3**
Band 1 Bottom	Description of explanations of pattern recognition is **just discernible.** It is **weak and shows muddled** understanding. The answer may be **wholly irrelevant to the question's requirement or mainly irrelevant.** *Partial performance is rudimentary and sometimes flawed with little focus on the question.*	**2-0**

AO2: *Evaluation of explanations of pattern recognition.*

Band	Mark Allocation	Marks
Band 3 Top	Evaluation of explanations of pattern recognition 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 explanations of pattern recognition 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 explanations of pattern recognition is **limited.** The material is used in a **reasonably effective** manner and shows **reasonable elaboration.** *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).*	**8-7**
Band 2 Bottom	Evaluation of explanations of pattern recognition is **basic.** The material is used in a **restricted** manner and shows **some evidence of elaboration.** *Partial performance is limited with reasonable elaboration, with reasonably effective use of material.*	**6-5**
Band 1 Top	Evaluation of explanations of pattern recognition is **superficial and rudimentary.** The material is **not used effectively** and shows **no evidence of elaboration.** *Partial performance is basic with some evidence of elaboration; restricted use of material.*	**4-3**
Band 1 Bottom	Evaluation of explanations of pattern recognition is **muddled and mainly irrelevant.** The material may be **wholly irrelevant.** *Partial performance is superficial with no evidence of elaboration, and material is not used effectively.*	**2-0**

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

With reference to explanations of perceptual development, discuss the nature-nurture debate in perception. *(24 marks)*

AO1

There are various ways in which candidates may approach this question. The focus should be on the nature-nurture debate in perception, and description of this would qualify for AO1 marks. They are likely to introduce some of the many relevant studies on perceptual development as AO2 support for either nature or nurture positions. If studies are not used explicitly as AO2 material they may earn AO1 marks as *illustrating* the nature-nurture debate.

Alternatively the candidate may focus on explanations of perceptual development in the context of the nature-nurture debate without *explicitly* outlining the debate. However it is likely that it would be contextualised sufficiently for such material – explanations and nature-nurture – to be given AO1 credit as generally illustrating the nature-nurture debate.

References to Piaget should not be automatically discounted, as several of his studies were directly on perceptual development eg three mountains task.

AO2

This is an area where relevant studies are easily accessible and research findings are likely to provide the bulk of AO2 material, as supporting either nature or nurture positions. Particularly credit-worthy would be a consideration of the strength of opposing arguments or other general issues such as the difficulty of separating nature from nurture. Evidence should be taken from explanations and studies of *perceptual development,* given the subsection of the Specification. Candidates may be tempted to introduce material from other areas such as research into IQ; such answers, where the nature-nurture debate is discussed but without reference to perceptual development, can receive a maximum of 4 marks for AO1 and 4 marks for AO2.

AO1: *Description of the nature-nurture debate in perception with reference to explanations of perceptual development.*

Band	Mark Allocation	Marks
Band 3 Top	Description of the nature-nurture debate in perception with reference to explanations of perceptual 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.	**12-11**
Band 3 Bottom	Description of the nature-nurture debate in perception with reference to explanations of perceptual 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.	**10-9**
Band 2 Top	Description of the nature-nurture debate in perception with reference to explanations of perceptual 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.	**8-7**
Band 2 Bottom	Description of the nature-nurture debate in perception with reference to explanations of perceptual 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.	**6-5**
Band 1 Top	Description of the nature-nurture debate in perception with reference to explanations of perceptual development 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-nurture debate in perception with reference to explanations of perceptual development is **just discernible or mainly irrelevant.** It is **weak and shows muddled** understanding. The answer may be **wholly irrelevant** to the question's requirement.	**2-0**

AO2: *Evaluation of the nature-nuture debate in perception with reference to explanations of perceptual development.*

Band	Mark Allocation	Marks
Band 3 Top	Evaluation of the nature-nurture debate in perception with reference to explanations of perceptual development 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 nature-nurture debate in perception with reference to explanations of perceptual development 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 nature-nurture debate in perception with reference to explanations of perceptual development is **limited.** The material is used in a **reasonably effective** manner and shows **reasonable elaboration.**	**8-7**
Band 2 Bottom	Evaluation of the nature-nurture debate in perception with reference to explanations of perceptual development is **basic.** The material is used in a **restricted** manner and shows **some evidence of elaboration.**	**6-5**
Band 1 Top	Evaluation of the nature-nurture debate in perception with reference to explanations of perceptual development is **superficial and rudimentary.** The material is **not used effectively** and shows **no evidence of elaboration.**	**4-3**
Band 1 Bottom	Evaluation of the nature-nurture debate in perception with reference to explanations of perceptual development is **muddled and mainly irrelevant.** The material may be **wholly irrelevant.**	**2-0**

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

Describe and evaluate research into problem-solving.   *(24 marks)*

AO1

'Research' can include both theoretical approaches and research studies, and therefore AO1 material could include theories/models of problem-solving behaviour or descriptions of research studies. The Specification guides the candidates to problem-solving strategies including Gestalt and information processing approaches such as means-end analysis, and these are likely to feature in most essays. Developments of the Gestalt approach, including Kohler's work on 'insight' in primates, would also be relevant. Both Gestalt and information processing approaches involve a number of accessible principles and studies and either alone could be covered in sufficient detail to access the higher AO1 bands. Obviously candidates may introduce other approaches to problem-solving behaviour, such as Wason's classic work, Newell and Simon's General Problem Solver, and other computer-based approaches. Candidates choosing to cover more than one approach will clearly provide less depth but more breadth.

Decision-making is presented as a separate topic in the Specification, but can overlap with problem-solving behaviour. Essays focusing on decision-making should be looked at carefully for any material relevant to the question.

AO2

AO2 marks may be accessed in various ways. Research support for different models and strategies is widely accessible, especially the early work of the Gestalt psychologists, although many of these studies can be criticised methodologically and this too would be relevant to the question. A different level of support for information-processing approaches would be the use of computer-modelling to develop and test different heuristics. This then leads to further issues such as the success (or not) of different strategies to account for problem solving in the real world, and phenomena such as insight learning.

AO1: *Description of research into problem-solving.*

Band	Mark Allocation	Marks
Band 3 Top	Description of research into problem-solving 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 problem-solving 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 problem-solving 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 problem-solving 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 problem-solving 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 problem-solving is **just discernible or mainly irrelevant.** It is **weak and shows muddled** understanding. The answer may be **wholly irrelevant** to the question's requirement.	**2-0**

AO2: *Evaluation of research into problem-solving.*

Band	Mark Allocation	Marks
Band 3 Top	Evaluation of research into problem-solving 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 problem-solving 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 problem-solving is **limited.** The material is used in a **reasonably effective** manner and shows **reasonable elaboration.**	**8-7**
Band 2 Bottom	Evaluation of research into problem-solving 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 problem-solving 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 problem-solving is **muddled and mainly irrelevant.** The material may be **wholly irrelevant.**	**2-0**

SECTION D: DEVELOPMENTAL PSYCHOLOGY

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

(a)   Outline **two** theories of cognitive development.   *(12 marks)*

(b)   Evaluate **one** of the theories of cognitive development that you have outlined in part (a).
                                                                                              (12 marks)

AO1: (a)

AO1 material is likely to focus on the theories of Piaget and Vygotsky. The test for the candidates is to present outlines that are concise and focus on key elements of the two theories, such as underlying processes and the stages of development (Piaget), and the role of language, culture and social support (Vygotsky). For marks in the top band the two outlines need to be reasonably balanced, but it is essential that essays are assessed in the context of providing two outlines in approximately 15 minutes.
Candidates occasionally cannot inhibit themselves from providing evaluative material when outlining theories. The exporting rule allows that when material can not earn marks in one question part but which would earn marks in another question part, should be exported to that part.

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

AO2: (b)

Candidates are only required to evaluate one of the theories outlined in (a). Either theory can be evaluated in a variety of ways. For both there is wealth of relevant research used to evaluate the theories directly. The Specification also guides candidates to applications, and this too would be an effective source of AO2 material, especially in the area of education. Further general commentary could include the overall significance of the work of Piaget and Vygotsky in the field of child development.

Some candidates may use a second theory to evaluate the target theory. This is credit-worthy as long as it is used as part of sustained and effective commentary focusing on the target theory, rather than as a separate section of the answer.

AO1: *Brief outline of two theories of cognitive development.*

Band	Mark Allocation	Marks
Band 3 Top	Outline of two theories of cognitive development 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 cognitive development 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 cognitive development is **limited.** It is **generally accurate and reasonably detailed.** The organisation and structure of the answer are **reasonably constructed,** with a **fair** balance between the two theories. *Partial performance is substantial, accurate and well-detailed (top of band) or slightly limited, accurate and reasonably detailed (bottom of band).*	**8-7**
Band 2 Bottom	Outline of two theories of cognitive development is **basic.** It is **generally accurate but lacks detail.** The organisation and structure of the answer are **reasonable**, with a **fair** balance between the two theories. *Partial performance is limited, generally accurate and reasonably detailed.*	**6-5**
Band 1 Top	Outline of two theories of cognitive 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 two theories. *Partial performance is basic, generally accurate and lacking detail.*	**4-3**
Band 1 Bottom	Outline of two theories of cognitive development is **just discernible or mainly irrelevant.** It is **weak and shows muddled** understanding. The answer may be **wholly irrelevant** to the question's requirement. *Partial performance is rudimentary and sometimes flawed with little focus on the question.*	**2-0**

AO2: *Evaluation of one theory of cognitive development.*

Band	Mark Allocation	Marks
Band 3 Top	Evaluation of one theory of cognitive development 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 cognitive development 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 cognitive development 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 cognitive development 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 cognitive development 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 cognitive development is **muddled and mainly irrelevant.** The material may be **wholly irrelevant.**	**2-0**

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

Discuss explanations for the development of gender identity **and/or** gender roles.   *(24 marks)*

AO1

There are various explanations for the development of gender identity/gender roles, such as social learning theory, psychoanalytic theory, and cognitive-developmental approaches. The distinction between gender roles and gender identity has now disappeared from the Specification and candidates need not specify what aspect they are addressing to earn marks across the scale.

Other developmental areas such as moral development are unlikely to be relevant unless there is a specific focus on implications for gender identity/roles. Equally, a *general* consideration of eg social learning theory or Freudian approaches that does not focus on gender identity/roles cannot move beyond Band 1. Biological models of gender development are not excluded, but again the focus must be on gender identity/roles

This is an area where candidates often use studies to *illustrate* explanations rather than explicitly as AO2 evaluative material, and such illustration can earn AO1 marks.

AO2

Evaluation of explanations may be based on research support, although research studies should not be double credited (see above). Studies may themselves be criticised, but unless the implication of such methodological criticisms for explanations is explicit they cannot move out of Band 1 for AO2. An alternative approach would be to consider how well explanations account for general features of gender identity/roles such as developmental trajectories. Alternative explanations may be used to evaluate a target explanation but can gain marks only if used as part of effective evaluation rather than simply described; in the latter case they may earn AO1 marks.

Candidates are required to cover at least two explanations. Those covering only one are exhibiting partial performance and can receive a maximum of 8 marks for AO1 and 8 marks for AO2.

AO1: *Description of explanations for the development of gender identity and/or gender roles.*

Band	Mark Allocation	Marks
Band 3 Top	Description of explanations for the development of gender identity and/or gender roles 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 explanations for the development of gender identity and/or gender roles 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 explanations for the development of gender identity and/or gender roles 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. *Partial performance is substantial, accurate and well-detailed (top of band) or slightly limited, accurate and reasonably detailed (bottom of band).*	**8-7**
Band 2 Bottom	Description of explanations for the development of gender identity and/or gender roles 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. *Partial performance is limited, generally accurate and reasonably detailed.*	**6-5**
Band 1 Top	Description of explanations for the development of gender identity and/or gender roles is **rudimentary and sometimes flawed.** There is **some focus** on the question. The organisation and structure of the answer are **reasonable.** *Partial performance is basic, generally accurate and lacking detail.*	**4-3**
Band 1 Bottom	Description of explanations for the development of gender identity and/or gender roles is **just discernible or mainly irrelevant.** It is **weak and shows muddled** understanding. The answer may be **wholly irrelevant** to the question's requirement. *Partial performance is rudimentary and sometimes flawed with little focus on the question.*	**2-0**

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

Band	Mark Allocation	Marks
Band 3 Top	Evaluation of explanations for the development of gender identity and/or gender roles 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 explanations for the development of gender identity and/or gender roles 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 explanations for the development of gender identity and/or gender roles is **limited.** The material is used in a **reasonably effective** manner and shows **reasonable elaboration.** *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).*	**8-7**
Band 2 Bottom	Evaluation of explanations for the development of gender identity and/or gender roles is **basic.** The material is used in a **restricted** manner and shows **some evidence of elaboration.** *Partial performance is limited with reasonable elaboration, with reasonably effective use of material.*	**6-5**
Band 1 Top	Evaluation of explanations for the development of gender identity and/or gender roles is **superficial and rudimentary.** The material is **not used effectively** and shows **no evidence of elaboration.** *Partial performance is basic with some evidence of elaboration; restricted use of material.*	**4-3**
Band 1 Bottom	Evaluation of explanations for the development of gender identity and/or gender roles is **muddled and mainly irrelevant.** The material may be **wholly irrelevant.** *Partial performance is superficial with no evidence of elaboration, and material is not used effectively.*	**2-0**

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

Discuss **one or more** explanations of adjustment to old age (eg social disengagement theory).
(24 marks)

AO1

AO1 material could include a range of explanations such as social disengagement theory, activity theory, and selectivity theory. Alternatively candidates may focus on adjustments to specific aspects of old age, such as retirement or bereavement. To earn marks this would have to be embedded in theoretical models such as Erikson's psychosocial stages or Kubler-Ross's stages of dying; straightforward listing of phenomena associated with ageing would earn marks restricted to Band 1.
Candidates may choose to describe cognitive changes in old age, such as effects on intelligence, memory, learning and problem solving. As long as such material includes a focus on how people *adjust* to these changes it can be credited.

AO2

AO2 material will vary according to the approach taken by the candidate. Theories can be evaluated through research support or their ability to account for observations on adjustments to old age. Candidates choosing to focus on specific aspects of old age, such as retirement, bereavement or cognitive changes, and explanations for these, may use research support and perhaps cultural variations in these adjustments and changes.

An issue that can arise in this area is the lack of a precise definition of 'old age'. A practical threshold would be retirement age or older, although examiners should use their judgement where necessary. Material covering much younger ages would not be creditworthy.

AO1: *Description of one or more explanations of adjustment to old age.*

Band	Mark Allocation	Marks
Band 3 Top	Description of one or more explanations of adjustment to old age 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 explanations of adjustment to old age 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 explanations of adjustment to old age 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 explanations of adjustment to old age 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 explanations of adjustment to old age 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 explanations of adjustment to old age is **just discernible or mainly irrelevant.** It is **weak and shows muddled** understanding. The answer may be **wholly irrelevant** to the question's requirement.	**2-0**

AO2: *Evaluation of one or more explanations of adjustment to old age.*

Band	Mark Allocation	Marks
Band 3 Top	Evaluation of one or more explanations of adjustment to old age 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 explanations of adjustment to old age 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 explanations of adjustment to old age 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 explanations of adjustment to old age 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 explanations of adjustment to old age 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 explanations of adjustment to old age is **muddled and mainly irrelevant.** The material may be **wholly irrelevant.**	**2-0**

SECTION E: COMPARATIVE PSYCHOLOGY

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

Discuss **one or more** evolutionary explanations of the behaviour of non-human animals.
(24 marks)

AO1

This is a broad question and candidates have a wide range of AO1 material to draw on. A broad approach would be to describe major explanations such as natural selection and sexual selection and their role in understanding many aspects of animal behaviour, using examples to illustrate points. Alternatively candidates may focus on particular examples of behaviour and consider evolutionary explanations of these behaviours. The most likely examples would be from this section of the Specification ie kin selection and, in particular, altruism. As long as the context and focus are on *evolutionary explanations* this is an acceptable approach to the question.
The question refers to non-human animals and material from the human perspective cannot earn marks unless used to illustrate or comment upon work with non-human animals.

AO2

AO2 material may come in a variety of forms depending on the approach taken by the candidate. Broad approaches such as natural selection can be assessed as to their general status and the degree to which they successfully account for animal behaviour. Developments of traditional Darwinian theory, such as Dawkin's selfish gene, could also count as relevant commentary.
Candidates focusing on specific examples of animal behaviour such as altruism, may also discuss the problems it raises for evolutionary approaches and bring in more contemporary views. However, as with AO1, the discussion must focus on evolutionary explanations rather then altruism per se. If examples of animal behaviour are not clearly used to evaluate evolutionary explanations, they may earn AO1 marks as illustrating evolutionary explanations.

AO1: *Description of one or more evolutionary explanations of the behaviour of non-human animals.*

Band	Mark Allocation	Marks
Band 3 Top	Description of one or more evolutionary explanations 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 evolutionary explanations 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 evolutionary explanations 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 evolutionary explanations 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 evolutionary explanations 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 evolutionary explanations is **just discernible or mainly irrelevant.** It is **weak and shows muddled** understanding. The answer may be **wholly irrelevant** to the question's requirement.	**2-0**

AO2: *Evaluation of one or more evolutionary explanations of the behaviour of non-human animals.*

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

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

Outline and evaluate the use of **two or more** signalling systems in non-human animals.
(24 marks)

AO1

Signalling systems used by non-human animals come in a variety of forms, including visual, auditory, and olfactory. Relevant AO1 could include an overview of signals and their role in eg courtship/mating, food sources, threats, social communication, and the links between signals and fitness (eg the differences between communication, eavesdropping, and deceit). Variation is likely in the accuracy and detail of accounts, especially in outlining the *role* of signalling systems.

Signalling systems can overlap with language and some candidates may take the route of discussing animal language per se. Behaviours such as the bee's waggle dance and even the use of ASL and key symbols by primates are signalling systems, but can only earn marks if discussed as signalling systems; otherwise such material is limited to the top of Band 1 for AO1 and AO2.

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 an evaluation 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.

There is a requirement for candidates to consider at least two signalling systems; this requirement can be met by either consideration of two systems in different modalities or two systems in the same modality. If this requirement is not met, candidates are exhibiting partial performance and can receive a maximum of 8 marks for AO1 and 8 marks for AO2.

AO1: *Outline of the use of two or more signalling systems in non-human animals.*

Band	Mark Allocation	Marks
Band 3 Top	Outline of the use of two or more 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	Outline of the use of two or more 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	Outline of the use of two or more 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. *Partial performance is substantial, accurate and well-detailed (top of band) or slightly limited, accurate and reasonably detailed (bottom of band).*	**8-7**
Band 2 Bottom	Outline of the use of two or more 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. *Partial performance is limited, generally accurate and reasonably detailed.*	**6-5**
Band 1 Top	Outline of the use of two or more signalling systems is **rudimentary and sometimes flawed.** There is **some focus** on the question. The organisation and structure of the answer are **reasonable.** *Partial performance is basic, generally accurate and lacking detail.*	**4-3**
Band 1 Bottom	Outline of the use of two or more signalling systems is **just discernible or mainly irrelevant.** It is **weak and shows muddled** understanding. The answer may be **wholly irrelevant** to the question's requirement. *Partial performance is rudimentary and sometimes flawed with little focus on the question.*	**2-0**

AO1: *Outline of the use of two or more signalling systems in non-human animals.*

AO2: *Evaluation of the use of two or more signalling systems in non-human animals.*

Band	Mark Allocation	Marks
Band 3 Top	Evaluation of the use of two or more 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 the use of two or more 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 the use of two or more signalling systems is **limited.** The material is used in a **reasonably effective** manner and shows **reasonable elaboration.** *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).*	**8-7**
Band 2 Bottom	Evaluation of the use of two or more signalling systems is **basic.** The material is used in a **restricted** manner and shows **some evidence of elaboration.** *Partial performance is limited with reasonable elaboration, with reasonably effective use of material.*	**6-5**
Band 1 Top	Evaluation of the use of two or more signalling systems is **superficial and rudimentary.** The material is **not used effectively** and shows **no evidence of elaboration.** *Partial performance is basic with some evidence of elaboration; restricted use of material.*	**4-3**
Band 1 Bottom	Evaluation of the use of two or more signalling systems is **muddled and mainly irrelevant.** The material may be **wholly irrelevant.** *Partial performance is superficial with no evidence of elaboration, and material is not used effectively.*	**2-0**

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

(a)   Outline and evaluate **one or more** evolutionary explanations of depression.   *(12 marks)*

(b)   Outline and evaluate **one or more** evolutionary explanations of anxiety disorders.
(12 marks)

AO1: (a) and (b)

For both depression and anxiety disorders there are several evolutionary explanations
available, such as social regulation and competition (depression), and preparedness and harm
avoidance (phobias and obsessive compulsive disorders). More general considerations, such
as the EEA and the persistence of apparently maladaptive traits, may qualify for AO1 marks or
as AO2 commentary depending on the context.
Candidates are required to outline and evaluate for 12 marks; examiners need to be sensitive to
the time constraints of this question and the fact that depth/detail will be limited even in top band
answers.

AO2: (a) and (b)

There are a variety of routes to AO2 credit. Contemporary research studies are relevant to, for
instance, phobias and preparedness, while symptoms of depression can be directly related to
evolutionary explanations. Candidates may also comment on the speculative nature of many
hypotheses and the difficulty of obtaining direct evidence. Alternative contemporary models of
depression and anxiety can qualify for AO2 credit *if* used as part of sustained and effective
evaluation, rather than simply being described.

AO1*: Outline of one or more evolutionary explanations.*

Band	Mark Allocation	Marks
Band 3 Top	Outline of one or more evolutionary explanations is **substantial.** It is **accurate and well-detailed.** The organisation and structure of the answer are **coherent.**	**6**
Band 3 Bottom	Outline of one or more evolutionary explanations is **slightly limited.** It is **accurate and reasonably detailed.** The organisation and structure of the answer are coherent.	**5**
Band 2 Top	Outline of one or more evolutionary explanations is **limited.** It is **generally accurate and reasonably detailed.** The organisation and structure of the answer are **reasonably constructed.**	**4**
Band 2 Bottom	Outline of one or more evolutionary explanations is **basic.** It is **generally accurate but lacks detail.** The organisation and structure of the answer are **reasonable.**	**3**
Band 1 Top	Outline of one or more evolutionary explanations 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 or more evolutionary explanations is **just discernible or mainly irrelevant.** It is **weak and shows muddled** understanding. The answer may be **wholly irrelevant** to the question's requirement.	**0-1**

AO2: *Evaluation of one or more evolutionary explanations.*

Band	Mark Allocation	Marks
Band 3 Top	Evaluation of one or more evolutionary explanations 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 or more evolutionary explanations 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 or more evolutionary explanations is **limited.** The material is used in a **reasonably effective** manner and shows **reasonable elaboration.**	**4**
Band 2 Bottom	Evaluation of one or more evolutionary explanations is **basic.** The material is used in a **restricted** manner and shows **some evidence of elaboration.**	**3**
Band 1 Top	Evaluation of one or more evolutionary explanations is **superficial and rudimentary.** The material is **not used effectively** and shows **no evidence of elaboration.**	**2**
Band 1 Bottom	Evaluation of one or more evolutionary explanations is **muddled and mainly irrelevant.** The material may be **wholly irrelevant.**	**0-1**

A LEVEL/A2 UNIT 4: ASSESSMENT GRID

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

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