



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 - June series

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

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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 imbalanced
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 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.

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SECTION A: SOCIAL PSYCHOLOGY**1**

Discuss social and cultural influences on perception of the social world.	(24 marks)
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AO1

The specification guides candidates towards social representations theory and social/cultural stereotyping in relation to perception of the social world, and AO1 material is likely to consist of descriptions of one or both of these areas. From previous papers, candidates tend to focus on social/cultural stereotyping, including the many functions of stereotypes and potential explanations such as the 'grain of truth' and 'illusory correlations' approaches. Key elements of Moscovici's social representations theory include concepts such as 'anchoring' and 'objectification'.

An alternative/additional approach would be to describe overarching aspects of social perception such as the concept of 'social misers' and the general role of social categorisation in everyday life.

AO2

There are a number of studies directly testing assumptions of social representations theory and social/cultural stereotyping, and these would be an effective source of AO2 marks. Further, more general, commentary could include the vagueness of the concept of social representations (and hence problems in testing the theory), cultural differences in social representations, or the role of informational and attributional biases in maintaining illusory correlations and stereotypes. A consideration of the usefulness (or not) of social/cultural stereotyping would also be relevant.

Given the difficulty of differentiating social and cultural influences in any discussion of social representations and/or social cultural stereotyping, there is no requirement for candidates to discuss *explicitly* both social and cultural influences, and no partial performance considerations.

AO1: Description of social and cultural influences on perception of the social world

Band	Mark Allocation	Marks
Band 3 Top	Description of social and cultural influences on perception of the social world 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 cultural influences on perception of the social world 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 cultural influences on perception of the social world 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 cultural influences on perception of the social world 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 cultural influences on perception of the social world 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 cultural influences on perception of the social world is just discernible . It is weak and shows muddled understanding . The answer may be wholly irrelevant to the question's requirement .	2-0

AO2: Commentary on social and cultural influences on perception of the social world

Band	Mark Allocation	Marks
Band 3 Top	Commentary on social and cultural influences on perception of the social world 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 cultural influences on perception of the social world 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 cultural influences on perception of the social world is limited . The material is used in a reasonably effective manner and shows reasonable elaboration .	8-7
Band 2 Bottom	Commentary on social and cultural influences on perception of the social world 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 cultural influences on perception of the social world 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 cultural influences on perception of the social world is muddled and mainly irrelevant . The material may be wholly irrelevant .	2-0

2

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

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

(a) AO1:

Social exchange, reward/need satisfaction, and equity theory are likely to feature as central to the question, while *models* of established relationships (eg Thibaut & Kelly) would also be acceptable. As the stages of relationships naturally overlap, it is also possible for candidates to introduce other aspects of relationships (eg dissolution), but these must be made *explicitly* relevant to the question to receive credit. There is also no requirement for the candidate to focus on romantic relationships: theories relating to, for example, understudied relationships could be relevant to this question.

Two or more theories are required. Candidates presenting only one are demonstrating partial performance and can receive a maximum of 8 marks for AO1 and 8 marks for AO2.

(b) AO2:

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

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

Under the *exporting rule*, material that would not receive credit in one question part can be exported to another part if it would receive credit there. This may include evaluative material in part (a) of this question that would receive credit in part (b).

AO1: Outline of two or more theories of the formation/maintenance of relationships

Band	Mark Allocation	Marks
Band 3 Top	Outline of two or more theories of the formation/maintenance of relationships is substantial . It is accurate and well detailed . The organisation and structure of the answer are coherent , with substantial evidence of breadth and/or depth.	12-11
Band 3 Bottom	Outline of two or more theories of the formation/maintenance of relationships is slightly limited . It is accurate and reasonably detailed . The organisation and structure of the answer are coherent , with evidence of breadth and/or depth.	10-9
Band 2 Top	Outline of two or more theories of the formation/maintenance of 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. <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 the formation/maintenance of 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. <i>Partial performance is limited, generally accurate and reasonably detailed.</i>	6-5
Band 1 Top	Outline of two or more theories of the formation/maintenance of relationships is rudimentary and sometimes flawed . There is some focus on the question. The organisation and structure of the answer are reasonable . <i>Partial performance is basic, generally accurate and lacking detail.</i>	4-3
Band 1 Bottom	Outline of two or more theories of the formation/maintenance of relationships is just discernible . It is weak and shows muddled understanding. The answer may be wholly irrelevant to the question's requirement . <i>Partial performance is rudimentary and sometimes flawed with little focus on the question.</i>	2-0

AO2: Evaluation of one theory of the formation/maintenance of relationships

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

3

Outline and evaluate research relating to media influences on pro-social behaviour.

(24 marks)

Note that the question is not restricted to research relating to the influence of *television*, so candidates can include reference to other forms of media as well. For some candidates who take a more expansive approach to the question (ie writing about several forms of media and/or a range of different studies), there will be an inevitable trade-off of depth against breadth. Examiners should bear this in mind and make suitable allowances for it.

AO1

AO1 should consist of an outline of research theories and/or studies. Theoretical approaches such as social learning theory or the analysis of developmental trends in pro-social influences of the media would be directly relevant to the question. Research studies may include *specific* studies relating to media influences on pro-social behaviour (eg Johnston and Ettema, 1982) or *meta-studies* such as those carried out by Hearold (1986) or Mares (1996). Some of these studies (such as Hearold's meta-study) were designed to investigate both pro-social *and* anti-social influences, but only the results relating to pro-social influences are relevant here. Material relating to *anti-social* influences may be used as part of the evaluation of pro-social influences, but unless used explicitly in this way cannot earn marks. Although unlikely, the classic Bobo doll studies may receive credit if clearly shaped towards pro-social behaviour.

AO2

Evaluation may include the explanatory power of approaches such as social learning theory. More likely it will be aimed at specific methodological or interpretative problems of relevant studies (eg the claim that many of Hearold's studies were of specially-made pro-social programmes rather than real television shows). Methodological criticisms such as cultural or gender bias, or ecological validity, must be *contextualised* and *elaborated* to move out of Band 1. Alternatively, some candidates may link findings to *explanations* of the pro-social influence of the media (eg the acquisition of pro-social behaviours through social learning). This would be an extremely effective method of accessing AO2 marks.

Some candidates may offer general comments about the media influences debate, such as those detailed in David Gauntlett's '*Ten things wrong with the media influences debate*' or Sonia Livingstone's book '*Making sense of television*'. Such commentary would earn marks if made relevant and is *psychologically informed*.

AO1: Outline of research relating to media influences on pro-social behaviour

Band	Mark Allocation	Marks
Band 3 Top	Outline of research relating to media influences on pro-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 relating to media influences on pro-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 relating to media influences on pro-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 relating to media influences on pro-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 relating to media influences on pro-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 relating to media influences on pro-social behaviour 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 relating to media influences on pro-social behaviour

Band	Mark Allocation	Marks
Band 3 Top	Evaluation of research relating to media influences on pro-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 relating to media influences on pro-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 relating to media influences on pro-social behaviour 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 media influences on pro-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 relating to media influences on pro-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 research relating to media influences on pro-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 the functional organisation of the cerebral cortex.

(24 marks)

AO1

AO1 material should consist of a description of aspects of the functional organisation of the cerebral cortex. This can include intrahemispheric areas given over to primary sensory and motor functions and the mirror image arrangement across the two hemispheres. An outline of sensory and motor pathways to and from the cerebral cortex would also be relevant.

Association cortex is likely to be covered along with secondary sensory regions, and functions of association cortex would be directly relevant. These can include language functions, and, although separated in the specification, a description of general hemisphere asymmetries of function can be credited. Less likely would be descriptions of the functional organisation within particular regions, such as the modular arrangement of visual cortex (eg orientation columns), but again this would be creditable.

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

AO2

AO2 material may be derived from a number of sources. These may include *methodologies* used in identifying cortical functions, such as case studies, lesion and stimulation work, and modern scanning and EEG/ERP techniques. Another effective source of commentary would be variations in the 'normal' pattern associated with, for instance, gender and handedness.

Additionally, candidates may introduce more general discussion of the 'localisation versus distributed functions' debate, especially as this is in the same part of the specification. As long as this is in the context of cortical functional organisation, this would be directly relevant to the question. Research evidence in favour of one approach or the other would also constitute effective AO2. Although unlikely, a consideration of higher level issues such as the 'reductionism' debate could also earn AO2 marks.

AO1*Description of the functional organisation of the cerebral cortex*

Band	Mark Allocation	Marks
Band 3 Top	Description of the functional organisation of 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 the functional organisation of 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 the functional organisation of 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 the functional organisation of 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 the functional organisation of 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 the functional organisation of the cerebral cortex 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 functional organisation of the cerebral cortex*

Band	Mark Allocation	Marks
Band 3 Top	Commentary on the functional organisation of 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 the functional organisation of 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 the functional organisation of 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 the functional organisation of 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 the functional organisation of 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 the functional organisation of the cerebral cortex is muddled and mainly irrelevant . The material may be wholly irrelevant .	2-0

5

(a) Describe research into biological rhythms (eg circadian, infradian, ultradian). (12 marks)
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(b) Consider the consequences of disrupting biological rhythms (eg shift work, jet lag). (12 marks)

(a) AO1

Examples of biological rhythms given in the specification are circadian, infradian and ultradian, and a variety of relevant studies on human and non-human animals are available to candidates. The key aspect is that any studies should be *explicitly* relevant to biological rhythms. This may be a particular issue with cave/isolation studies, research into sleep deprivation, and effects of disrupting biological rhythms: in each case, links to a particular biological rhythm and/or our *understanding* of biological rhythms must be clear.

The term 'research' also includes 'theories'. Therefore, description of models/mechanisms of biological rhythms would also be creditable as AO1.

Weaker answers may focus on, for example, sleep functions or dreaming. Such answers should be read carefully for any relevant material. In general, the degree to which candidates *shape* their response to the requirements of the question determines the coherence of the answer and the number of marks awarded.

(b) AO2

Candidates are likely to focus on findings from studies of shiftwork and jet lag, with, for instance, some discussion of the effects on industrial and sporting performance and the relative effects of phase advance and phase delay. However, to move out of Band 2 bottom, there must be more than just a *description* of relevant studies and the effects of disrupting biological rhythms. Candidates should be able to use findings as part of a sustained commentary on these effects. These could include specific elaborations such as methods of coping with disruption, the social impact (including historical perspectives such as the introduction of electric lighting and changes in sleep patterns), and more general commentary on the balance between exogenous zeitgebers and endogenous pacemakers.

Sleep disorders such as SAD must be explicitly justified as a disruption of biological rhythms to earn marks.

AO1: Description of research into biological rhythms

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

AO2: Commentary on the consequences of disrupting biological rhythms

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

6

Discuss research relating to the role of brain structures in motivational states. (24 marks)
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AO1

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

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

AO2

Research into the role of brain structures in motivational states can be evaluated through the degree of support from research studies (see above), and studies in turn can be evaluated in terms of methodological, ethical or other concerns. More general commentary could include a comparison of the brain structure approach with alternative approaches to explaining motivation, such as those emphasising psychological factors. This would also be creditable, although the focus must remain on brain structures.

Candidates are technically required to discuss at least *two* motivational states and at least *two* brain structures. However, the requirements of the question will be met if the candidate discusses *either* two or more motivational states *or* two or more brain structures. Note that clearly differentiated hypothalamic nuclei would qualify as separate brain structures. Candidates not meeting the requirement would be exhibiting partial performance and can receive a maximum of 8 marks for AO1 and 8 marks for AO2.

AO1: Description of research relating to the role of brain structures in motivational states

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

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

Band	Mark Allocation	Marks
Band 3 Top	Evaluation of research relating to the role of brain structures in motivational states 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 role of brain structures in motivational states 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 role of brain structures in motivational states is limited . The material is used in a reasonably effective manner and shows reasonable elaboration . <i>Partial performance is thorough, coherent and shows highly effective use of material (top of band) or slightly limited with effective use of material (bottom of band).</i>	8-7
Band 2 Bottom	Evaluation of research relating to the role of brain structures in motivational states is basic . The material is used in a restricted manner and shows some evidence of elaboration . <i>Partial performance is limited with reasonable elaboration, with reasonably effective use of material.</i>	6-5
Band 1 Top	Evaluation of research relating to the role of brain structures in motivational states 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 research relating to the role of brain structures in motivational states is muddled and mainly irrelevant . The material may be wholly irrelevant . <i>Partial performance is basic with some evidence of elaboration: restricted use of material.</i>	2-0

SECTION C: COGNITIVE PSYCHOLOGY**7**

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

AO1

AO1 should consist of an outline of one or more explanations of selective attention, such as those of Broadbent, Deutsch and Deutsch, or Treisman. Examiners should be alert to depth/breadth trade-offs in answers covering more than one explanation. As the focus of the question is on *explanations*, studies would be most effectively used as AO2. However, in this area, explanations are often effectively *illustrated* by the use of classic studies and such studies, not *shaped* as AO2, may earn AO1 marks.

Some of the early work of, for example, Cherry and the cocktail party effect was not clearly embedded in explanations of selective attention, and therefore cannot earn marks *unless* the relevance to explanations is explicit.

Candidates are not restricted to the auditory modality, and, although unlikely, visual focused attention (eg the zoom lens model) is perfectly acceptable. Work on divided attention is unlikely to earn marks unless some relation to explanations of focused attention is explicit.

AO2

Explanations are likely to be evaluated through the degree of research support. Studies and findings should be clearly contextualised as supporting/contradicting an explanation to earn AO2 marks: otherwise, they may qualify for AO1 credit (see above). Methodological evaluation of studies must be clearly *contextualised* and/or *elaborated* to move out of Band 1.

Alternatively, evaluation may be achieved through comparison with other models which may, for instance, provide a more convincing explanation of findings. The focus, however, must remain on the target explanation.

AO1: Outline of one or more explanations of focused attention

Band	Mark Allocation	Marks
Band 3 Top	Outline of one or more explanations of focused attention is substantial . It is accurate and well detailed . The organisation and structure of the answer are coherent , with substantial evidence of breadth and/or depth.	12-11
Band 3 Bottom	Outline of one or more explanations of focused attention is slightly limited . It is accurate and reasonably detailed . The organisation and structure of the answer are coherent , with evidence of breadth and/or depth.	10-9
Band 2 Top	Outline of one or more explanations of focused 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 focused 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 focused 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 focused attention 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 explanations of focused attention

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

8

Discuss explanations of **one or more** aspects of perceptual organisation (eg depth, movement, perceptual constancies, visual illusions). (24 marks)

AO1

AO1 should consist of a description of explanations of one or more aspects of perceptual organisation. Candidates may well use theories of visual perception given in this subsection to explain perceptual organisation. Examples are constructivist (eg Gregory) and direct (eg Gibson), although candidates are of course not restricted to these. Straight description of such theories without reference to the explanation of perceptual organisation would earn a maximum of 4 marks for AO1.

Examples of perceptual organisation given in the specification include depth, movement, constancies and illusions. Candidates are likely to focus on the use of theories to explain a subset of these, in particular visual illusions or constancies.

Alternatively, candidates may describe visual features in the environment and characteristics of the visual system and use them to explain aspects of perceptual organisation, eg the use of binocular and monocular cues in depth perception, or local movement signals and global optic flow in movement perception.

Descriptions of the visual system would not earn credit unless specifically shaped to the requirements of the question.

AO2

Candidates may access AO2 marks in various ways. Research support for a given explanation would be the most straightforward. Candidates may also introduce studies from areas such as cultural differences in the development of perceptual organisation, but to earn marks such material must be explicitly linked to *explanations* of visual perception.

If two or more explanations are presented, general commentary could include direct comparison of their effectiveness, but explicit comparison is not necessary for marks across the range.

The question does not exclude AO1 or AO2 material based on the *development* of perceptual organisation. However, there must be some explicit reference (a) to *explanations* of perceptual development, such as nature/nurture, and (b) to specific features of *perceptual organisation* (eg depth perception) for either AO1 or AO2 credit to be earned.

Candidates who present only *one* explanation of *one* aspect of perceptual organisation are exhibiting partial performance and can receive a maximum of 8 marks for AO1 and 8 marks for AO2. *One* explanation of *two* aspects of perceptual organisation, or *two* explanations of *one* aspect of perceptual organisation would *not* represent partial performance.

AO1: Description of explanations of one or more aspects of perceptual organisation

Band	Mark Allocation	Marks
Band 3 Top	Description of explanations of one or more aspects of perceptual organisation is substantial . It is accurate and well detailed . The organisation and structure of the answer are coherent , with substantial evidence of breadth and/or depth.	12-11

Band 3 Bottom	Description of explanations of one or more aspects of perceptual organisation is slightly limited . It is accurate and reasonably detailed . The organisation and structure of the answer are coherent , with evidence of breadth and/or depth.	10-9
Band 2 Top	Description of explanations of one or more aspects of perceptual organisation is limited . It is generally accurate and reasonably detailed . The organisation and structure of the answer are reasonably constructed , with increasing evidence of breadth and/or depth. <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 explanations of one or more aspects of perceptual organisation is basic . It is generally accurate but lacks detail . The organisation and structure of the answer are reasonable , with some evidence of breadth and/or depth. <i>Partial performance is limited, generally accurate and reasonably detailed.</i>	6-5
Band 1 Top	Description of explanations of one or more aspects of perceptual organisation is rudimentary and sometimes flawed . There is some focus on the question. The organisation and structure of the answer are reasonable . <i>Partial performance is basic, generally accurate and lacking detail.</i>	4-3
Band 1 Bottom	Description of explanations of one or more aspects of perceptual organisation is just discernible or mainly irrelevant . It is weak and shows muddled understanding . The answer may be wholly irrelevant to the question's requirement. <i>Partial performance is rudimentary and sometimes flawed with little focus on the question.</i>	2-0

AO2: Evaluation of explanations of one or more aspects of perceptual organisation

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

9

Discuss the relationship between language and thought.
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(24 marks)

AO1

Although candidates are likely to focus their AO1 material on the linguistic relativity hypothesis of Whorf-Sapir (that language determines many aspects of thought) and subsequent developments of this (eg strong and weak hypotheses), the question is quite general. 'Thought' can include effects of language on perception and memory, and so the work of Bernstein, Labov and others on the social and/or cultural aspects of language use could be relevant. However, the focus must be on *language and thought* rather than, for instance, the *structural* aspects of language.

Research on language development could also be relevant to this question. However, the focus again must be on the relationship between language and thought (eg the contrasting views of Piaget and Vygotsky on the role of language in cognitive development). Answers focusing on the nature-nurture debate on language acquisition would not earn marks.

AO2

Although research studies on cross-cultural differences in language related to differences in perception/memory, etc, would be an effective source of AO2, the question does not *require* reference to empirical studies. General informed commentary on the relationship between language and thought would be creditworthy, including an assessment of the current status of the linguistic relativity hypothesis and the role of social and/or cultural factors.

AO1: Description of the relationship between language and thought

Band	Mark Allocation	Marks
Band 3 Top	Description of the relationship between language and thought 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 language and thought 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 language and thought 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 language and thought 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 language and thought 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 language and thought 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: Commentary of the relationship between language and thought

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

SECTION D: DEVELOPMENTAL PSYCHOLOGY**10**

Discuss the role of genetics in the development of measured intelligence.	(24 marks)
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AO1

The most straightforward approach to this question would be to describe the *role* of genetics in the development of measured intelligence as AO1. AO2 material would then consist of relevant research evidence. Description of the role of genetics in measured intelligence could be at a descriptive and/or theoretical level, perhaps summarising the debate in terms of estimated contribution and type of contribution (ie the mechanisms by which genetics might influence the development of measured intelligence). It is more likely, however, that candidates will describe various studies (eg MZ/DZ twins, adoption studies) as a way of *illustrating* the role of genetics in the development of measured intelligence. This is therefore a question where the use of studies could be particularly problematic. However, the strategy is straightforward: where studies are used explicitly and effectively as AO2 (supporting or contradicting a role for genetics in measured intelligence) then they are assessed under AO2. Otherwise, studies showing a role for genetics should be assessed for AO1 marks.

Material on environmental factors may earn AO2 credit if used effectively but is not eligible for AO1 marks.

AO2

The main source of AO2 should be findings from research studies, as outlined above, and evaluation of these studies insofar as it affects the degree of support for the genetic argument. Straightforward methodological evaluation of studies that does not explicitly address implications for the role of genetics cannot move out of Band 1 for AO2.

Arguments (research studies and/or theories) in favour of environmental factors could also be used as sustained and effective commentary on the genetic position, but if simply described and not contextualised again can receive a maximum of 4 marks for AO2. Less likely would be critical evaluation of the environmentalist position as a way of strengthening the genetic argument, but this would be creditworthy as AO2 material.

AO1: Description of the role of genetics in the development of measured intelligence

Band	Mark Allocation	Marks
Band 3 Top	Description of the role of genetics in 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/or depth.	12-11
Band 3 Bottom	Description of the role of genetics in 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/or depth.	10-9
Band 2 Top	Description of the role of genetics in 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 the role of genetics in 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 the role of genetics in 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 the role of genetics in the development of measured intelligence 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 role of genetics in the development of measured intelligence

Band	Mark Allocation	Marks
Band 3 Top	Evaluation of the role of genetics in 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	Evaluation of the role of genetics in 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	Evaluation of the role of genetics in 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	Evaluation of the role of genetics in 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	Evaluation of the role of genetics in 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	Evaluation of the role of genetics in the development of measured intelligence is muddled and mainly irrelevant . The material may be wholly irrelevant .	2-0

11

Describe and evaluate social learning as an explanation of personality development.

(24 marks)

AO1

The specification refers to psychodynamic and social learning explanations of personality development, and previous questions from this area have usually allowed candidates to cover both. This time, candidates are required to focus on a description of social learning explanations for AO1, although the psychodynamic explanation could provide a rich source of AO2 marks.

A key to AO1 marks will be the extent to which answers focus on *personality development* rather than on general descriptions of the social learning approach to explaining behaviour. Thus, reference to imitation, vicarious learning and reinforcement, reciprocal determinism, etc, must be in the context of personality and its development to move out of Band 1 for AO1. A similar restriction applies to Mischel's work on, for example, situationism and personality. If there is no explicit reference to *personality development*, such answers can receive a maximum of 4 marks for AO1.

AO2

There are many studies in support of social learning as an explanation, especially Bandura's work, although AO2 marks will be in proportion to the extent to which findings are used to evaluate the social learning explanation of personality development. Methodological criticisms of individual studies would be relevant, but would not move out of Band 1 for AO2 unless *implications* for social learning explanations were explicit.

Psychodynamic explanations could be used as sustained and effective commentary on social learning explanations, especially in terms of their richness and complexity, and focus on the unconscious and early relationships. Simple description of the psychodynamic explanation would not move out of Band 1 for AO2, while evaluation of the psychodynamic explanation would not earn AO2 marks *unless* linked explicitly to its value as an alternative to the social learning explanation.

Alternative explanations for aspects of personality development, such as genetic factors in aggression, would also be creditworthy AO2 material.

AO1: Description of social learning as an explanation of personality development

Band	Mark Allocation	Marks
Band 3 Top	Description of social learning as an explanation 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.	12-11
Band 3 Bottom	Description of social learning as an explanation 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.	10-9
Band 2 Top	Description of social learning as an explanation 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.	8-7
Band 2 Bottom	Description of social learning as an explanation 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.	6-5
Band 1 Top	Description of social learning as an explanation of personality 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 social learning as an explanation of personality 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 social learning as an explanation of personality development

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

12

'Events such as marriage, divorce and parenthood may have considerable effects on the individual, but these effects vary with an individual's gender and culture.'

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

- marriage
- divorce
- parenthood.

(24 marks)

AO1

AO1 material should consist of a description of research into the effects on the individual of one or more of marriage, divorce and parenthood. Although this is a potentially broad area, the specification guides the candidate towards cultural and gender differences. All of these life events can be approached in terms of gender (eg the differential impacts of marriage and divorce on men and women) and culture (eg cross-cultural attitudes to marriage, parenting and divorce). Although many systematic studies have been done in these areas, for instance on the impact of marriage and divorce on males and females, anecdotal material is likely to be presented, and in this area it can contain relevant points. Such material, though, will lack detail and is unlikely to move out of Band 1 for AO1.

AO1 material could therefore consist of research studies/findings or of theoretical perspectives, especially on gender/cultural differences. The question specifies 'effects on the individual'. However, any study or perspective on the effects of marriage, divorce or parenthood, including gender and/or cultural differences, automatically has relevance to individuals, and answers *not* making explicit reference to individuals can receive marks across the scale.

AO2

Evaluation of research into the effects of marriage, divorce or parenthood on the individual can be at the level of single studies, for instance cultural relativity issues for studies not specifically looking at cultural aspects. General commentary could also emphasise the over-emphasis on western conventional relationships, largely ignoring understudied relationships, for instance. Further points could include the implications of changes in adult relationships over time, for instance the changing roles (or not) of males and females in relation to work and parenting, the increasing divorce rate and its impact on individuals and families, or the maintenance of culturally-specific patterns of relationships in immigrant communities.

Examiners should be sensitive to depth/breadth trade-offs in answers that cover more than one event.

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

Band	Mark Allocation	Marks
Band 3 Top	Description of research into the effects on the individual of one or more of marriage, divorce and parenthood is substantial . It is accurate and well detailed . The organisation and structure of the answer are coherent , with substantial evidence of breadth and/or depth.	12-11
Band 3 Bottom	Description of research into the effects on the individual of one or more of marriage, divorce and parenthood is slightly limited . It is accurate and reasonably detailed . The organisation and structure of the answer are coherent , with evidence of breadth and/or depth.	10-9
Band 2 Top	Description of research into the effects on the individual of one or more of marriage, divorce and parenthood 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 the effects on the individual of one or more of marriage, divorce and parenthood 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 the effects on the individual of one or more of marriage, divorce and parenthood 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 the effects on the individual of one or more of marriage, divorce and parenthood 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 the effects on the individual of one or more of marriage, divorce and parenthood*

Band	Mark Allocation	Marks
Band 3 Top	Evaluation research into the effects on the individual of one or more of marriage, divorce and parenthood is thorough . The material is used in a highly effective manner and shows evidence of appropriate selection and coherent elaboration .	12-11
Band 3 Bottom	Evaluation of research into the effects on the individual of one or more of marriage, divorce and parenthood is slightly limited . The material is used in an effective manner and shows evidence of appropriate selection and elaboration .	10-9
Band 2 Top	Evaluation of research into the effects on the individual of one or more of marriage, divorce and parenthood is limited . The material is used in a reasonably effective manner and shows reasonable elaboration .	8-7
Band 2 Bottom	Evaluation of research into the effects on the individual of one or more of marriage, divorce and parenthood 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 the effects on the individual of one or more of marriage, divorce and parenthood 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 the effects on the individual of one or more of marriage, divorce and parenthood is muddled and mainly irrelevant . The material may be wholly irrelevant .	2-0

SECTION E: COMPARATIVE PSYCHOLOGY**13**

Describe and evaluate studies relating to the role of social learning in the behaviour of non-human animals. (24 marks)

AO1

AO1 should consist of a description of studies relating to the role of social learning in the behaviour of non-human animals. Social learning in non-human animals covers predominantly three overlapping areas. 'Imitation' of specific responses or behaviours has been demonstrated in many species. 'Teaching' of behaviours to infants by adults, a more interventionist form of imitation, is more controversial but again studies claim to have demonstrated it. Finally, 'foraging' behaviour seems to involve the transmission of food preferences from one animal to another. Candidates are likely to describe studies from these areas.

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

Candidates may describe the *role* of social learning in the behaviour of non-human animals. This is not eligible for AO1 marks but may form part of AO2 commentary and evaluation.

AO2

Two key sources of AO2 material may be methodological criticisms of individual studies and the implications of findings for the role of social learning. Findings from individual studies may reflect processes such as enhanced attention and arousal as well as social learning, and laboratory-based studies can be contrasted with field studies in terms of control and generalisability.

Commentary on findings may lead to a consideration of the role of social learning, such as alternative explanations, the range of social learning, or species-differences in the significance of social learning as compared with innate behaviours/ fixed action patterns. As long as this type of commentary is linked to research findings, it can qualify for AO2 marks across the scale. Otherwise it can receive a maximum of 4 marks for AO2.

There is a technical requirement for candidates to consider more than one research study. However, answers that focus on just one are likely to be restricted in terms of the effective use of material and coherent elaboration, and partial performance is not a consideration on this question.

AO1: Description of studies relating to the role of social learning in the behaviour of non-human animals

Band	Mark Allocation	Marks
Band 3 Top	Description of studies relating to the role of social learning in the behaviour of 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/or depth.	12-11
Band 3 Bottom	Description of studies relating to the role of social learning in the behaviour of 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/or depth.	10-9
Band 2 Top	Description of studies relating to the role of social learning in the behaviour of 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 studies relating to the role of social learning in the behaviour of 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 studies relating to the role of social learning in the behaviour of 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 studies relating to the role of social learning in the behaviour of non-human animals 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 studies relating to the role of social learning in the behaviour of non-human animals

Band	Mark Allocation	Marks
Band 3 Top	Evaluation of studies relating to the role of social learning in the behaviour of 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 studies relating to the role of social learning in the behaviour of 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 studies relating to the role of social learning in the behaviour of 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 studies relating to the role of social learning in the behaviour of 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 studies relating to the role of social learning in the behaviour of 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 studies relating to the role of social learning in the behaviour of non-human animals is muddled and mainly irrelevant . The material may be wholly irrelevant .	2-0

14

Outline and evaluate two or more explanations of how animals navigate. (24 marks)
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AO1

AO1 material should consist of outlines of two or more explanations of animal navigation. Candidates may select two or more explanations of, for example, homing behaviour, such as olfactory cues and use of landmarks, or explanations of two or more types of navigation, such as homing and migration. A final alternative would be to consider explanations of navigation in two or more species, such as pigeons and salmon, or groups of species (eg birds versus fish). Given this choice, it is unlikely that candidates would consider only one explanation of one example of animal navigation, but if they do, they are exhibiting partial performance and can receive a maximum of 8 marks for AO1 and 8 marks for AO2. Candidates may cover more than two explanations, in which case examiners must be sensitive to depth-breadth trade-offs in both AO1 and AO2.

AO2

There are several sources of AO2 material. Support from research findings is widely available, along with alternative explanations of research findings (although alternative explanations not used as part of sustained and effective evaluation of a target explanation can receive a maximum mark of 4 for AO2). Methodological evaluation of single studies must be effectively *contextualised* in relation to explanations to move out of Band 1 for AO2.

The explanatory power of the chosen explanations is another source of AO2 commentary (eg how well do they fit the 'facts' of animal navigation?), while additional general commentary may consider the use of multiple systems in, for example, homing and migration.

Research with humans is not excluded by this question, and there are studies on human direction-finding using natural environmental cues such as stars, planets etc. Descriptions of the use of maps and GPS systems would not earn marks.

AO1: Outline of two or more explanations of how animals navigate

Band	Mark Allocation	Marks
Band 3 Top	Outline of two or more explanations of how animals navigate is substantial . It is accurate and well detailed . The organisation and structure of the answer are coherent , with substantial evidence of breadth and/or depth.	12-11
Band 3 Bottom	Outline of two or more explanations of how animals navigate is slightly limited . It is accurate and reasonably detailed . The organisation and structure of the answer are coherent , with evidence of breadth and/or depth.	10-9
Band 2 Top	Outline of two or more explanations of how animals navigate is limited . It is generally accurate and reasonably detailed . The organisation and structure of the answer are reasonably constructed , with increasing evidence of breadth and/or depth. <i>Partial performance is substantial, accurate and well detailed (top of band) or slightly limited, accurate and reasonably detailed (bottom of band).</i>	8-7

Band 2 Bottom	Outline of two or more explanations of how animals navigate is basic . It is generally accurate but lacks detail . The organisation and structure of the answer are reasonable , with some evidence of breadth and/or depth. <i>Partial performance is limited, generally accurate and reasonably detailed.</i>	6-5
Band 1 Top	Outline of two or more explanations of how animals navigate is rudimentary and sometimes flawed . There is some focus on the question. The organisation and structure of the answer are reasonable . <i>Partial performance is basic, generally accurate and lacking detail.</i>	4-3
Band 1 Bottom	Outline of two or more explanations of how animals navigate is just discernible or mainly irrelevant . It is weak and shows muddled understanding. The answer may be wholly irrelevant to the question's requirement. <i>Partial performance is rudimentary and sometimes flawed with little focus on the question.</i>	2-0

AO2 Evaluation of two or more explanations of how animals navigate

Band	Mark Allocation	Marks
Band 3 Top	Evaluation of two or more explanations of how animals navigate 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 explanations of how animals navigate 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 explanations of how animals navigate is limited . The material is used in a reasonably effective manner and shows reasonable elaboration . <i>Partial performance is thorough, coherent and shows highly effective use of material (top of band) or slightly limited with effective use of material (bottom of band).</i>	8-7
Band 2 Bottom	Evaluation of two or more explanations of how animals navigate 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 explanations of how animals navigate 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 explanations of how animals navigate is muddled and mainly irrelevant . The material may be wholly irrelevant . <i>Partial performance is superficial with no evidence of elaboration, and material is not used effectively.</i>	2-0

15

Outline and evaluate **one or more** evolutionary explanations of parental investment in humans (eg sex differences, parent-offspring conflict). (24 marks)

AO1

The focus for both AO1 and AO2 in this question should be on evolutionary explanations of parental investment, with AO1 consisting of description of evolutionary explanations. However, parental investment has implications for courtship and mating behaviour (especially mate choice), and as long as the *focus* of the answer is on parental investment, related material would be creditworthy. Descriptions of, for example, different mating systems would not earn AO1 or AO2 marks unless *explicitly* linked to issues of parental investment.

Triver's parental investment theory is likely to provide the core of candidates' responses, with related issues of anisogamy, differential maternal and paternal investment and consequent gender differences in mate choice. Further considerations could include parent-offspring conflict and cuckoldry. Overarching evolutionary explanations, such as Darwinian or selfish-gene approaches, may earn AO1 marks, but only if the implications for parental investment are explicit.

AO2

There are many relevant studies in this area, in particular those of Buss and Dunbar on gender differences in mate selection related to gender differences in parental investment. Studies with non-human animals may also qualify for AO2 marks if used as part of sustained and effective commentary on work with humans. If studies are described but not used effectively and contextualised as relevant to evolutionary explanations of parental investment, they can earn a maximum of 4 marks for AO2.

More general commentary might include social and cultural trends, such as the increasing involvement of men in the upbringing of children, the rise in single parent families, and child-rearing in understudied relationships.

AO1 *Outline of one or more evolutionary explanations of parental investment*

Band	Mark Allocation	Marks
Band 3 Top	Outline of one or more evolutionary explanations of parental investment is substantial . It is accurate and well detailed . The organisation and structure of the answer are coherent , with substantial evidence of breadth and/or depth.	12-11
Band 3 Bottom	Outline of one or more evolutionary explanations of parental investment is slightly limited . It is accurate and reasonably detailed . The organisation and structure of the answer are coherent , with evidence of breadth and/or depth.	10-9
Band 2 Top	Outline of one or more evolutionary explanations of parental investment 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 evolutionary explanations of parental investment 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 evolutionary explanations of parental investment 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 evolutionary explanations of parental investment 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 parental investment*

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

A LEVEL/A2 UNIT 4: ASSESSMENT GRID

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

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