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**General Certificate of Education (A-level)  
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**Psychology A**

**PSYA3**

**(Specification 2180)**

**Unit 3: Topics in Psychology**

**Final**

***Mark Scheme***

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## PSYA3: Topics in Psychology

### Topic: Biological Rhythms and Sleep

**Question 01** Discuss research into the disruption of biological rhythms (e.g. shift work, jet lag).

(8 marks + 16 marks)

**AO1 = 8 marks**      **Outline of research into the disruption of biological rhythms**

The term 'research' refers to both theory/explanations and studies, and so there are two possible routes through this question. One is to outline theory/explanations relevant to the disruption of biological rhythms as AO1 material, with studies as AO2/3. The other is to outline studies as AO1 and to use the implications of these studies as AO2/3. Examiners should also be alert to answers that use both approaches.

In the context of biological rhythms the focus is far more likely to be on the findings of research studies. AO1 material is therefore likely to focus on research studies into shift work and jet lag, although other examples, such as seasonal affective disorder, could also be relevant if presented in the context of the disruption of biological rhythms. Effects of disrupting biological rhythms through shift work and jet lag can be behavioural (e.g. lowered productivity), psychological (e.g. tiredness, depression, anxiety), or physiological (e.g. increased vulnerability to heart disease and cancer). For each of these and for both shift work and jet lag there are many accessible research studies.

More anecdotal answers that simply describe effects of disrupting biological rhythms without reference to research studies may earn marks as the description is based on research, but will not move out of Basic however accurate and detailed. This includes reference to real world events such as Chernobyl and Three Mile Island.

Some candidates may begin by outlining the mechanisms behind the disruptive effects, such as the dislocation of endogenous pacemakers and external zeitgebers i.e. outlining an *explanation* for the effects of disrupting biological rhythms. This would then become AO1 material, and studies used to support or contradict this explanation would become AO2/3.

Examiners should be sensitive to depth-breadth trade-offs in answers that cover two or more examples of disruption. There are no partial performance criteria for this question.

**AO1 8 marks knowledge and understanding****8-7 marks Sound**

Knowledge and understanding are accurate and well detailed.  
 A good range of relevant material has been selected  
 There is substantial evidence of breadth and depth.  
 Organisation and structure of the answer are coherent

**6-5 marks Reasonable**

Knowledge and understanding are generally accurate and reasonably detailed.  
 A range of relevant material has been selected  
 There is evidence of breadth and/or depth.  
 Organisation and structure of the answer are reasonably coherent

**4-3 marks Basic**

Knowledge and understanding are basic/relatively superficial  
 A restricted range of material has been presented  
 Organisation and structure of the answer are basic

**2-1 mark Rudimentary**

Knowledge and understanding are rudimentary and may be muddled and/or inaccurate  
 The material presented may be very brief or largely irrelevant  
 Lacks organisation and structure

**0 marks**

no creditworthy material

**AO2/3 = 16 marks Commentary on the effects of disrupting biological rhythms**

For answers focusing on the findings of research studies as AO1 material methodological evaluation of these studies would be directly relevant to the question and an important source of AO2/3 marks. Studies on jet lag or shift work in the real world raise major issues of validity and reliability that affect the generalisability of their findings. However the link between evaluative points and the reliability/validity of findings must be explicit for marks to be awarded. Comments on the consistency or otherwise of findings would also be an effective route to AO2/3 credit.

Further commentary might include the implications of findings for our understanding of the mechanisms of the effects of disruption, and application of findings to reduce the impact of disruption e.g. by changes to shift work patterns, or by adjusting behaviour when crossing time zones. For full credit such applications should be linked to mechanisms/explanations. Treatments for jet lag e.g. melatonin, would be creditable as long as there is an explicit link to biological rhythms e.g. via the role of melatonin in biological clocks.

For answers that present the mechanisms of disruption as AO1 material, the findings of relevant research studies would be the most accessible source of AO2/3 credit, as long as they are used to support or contradict our understanding of these mechanisms.

Indicative issues, debates and approaches in the context of the disruption of biological rhythms include practical applications of findings. Some convincing studies show that modifying shift work patterns can have significant beneficial effects on behaviour and health. Other relevant IDA may include reductionism and the nature/nurture debate.

**AO2/3 Mark bands – Best fit**

AO2/3 material should first be placed in the appropriate band according to the descriptors. However, not all the criteria need be satisfied for an answer to be placed in a particular band. Weak performance in one area may be compensated for by strong performance in others. In

order to access the top band, issues and debates and/or approaches need to be addressed effectively.

### AO2/3 16 Marks Commentary

#### **16-13 marks Effective**

Commentary demonstrates sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and/or a clear line of argument. Issues/debates/approaches are used effectively. Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.

#### **12-9 marks Reasonable**

Commentary demonstrates reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration and/or a line of argument is evident. Issues/debates/approaches are used in a reasonably effective manner. Most ideas appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling only occasionally compromise meaning.

#### **8-5 marks Basic**

Commentary demonstrates basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Superficial reference may be made to issues/debates/approaches. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.

#### **4-1 marks Rudimentary**

Commentary is rudimentary, demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant. If reference is made to issues/debates/approaches, it is muddled and inaccurate. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure, often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.

#### **0 marks**

No creditworthy material is presented.

## Topic: Perception

**Question 02** Outline and evaluate **one** research study into perceptual development in infants. (4 marks + 8 marks)

### AO1 = 4 marks Outline of one study into perceptual development in infants

AO1 marks should be awarded for the outline of one study into perceptual development in infants. The classic 'visual cliff' experiments of Gibson & Walk and others are likely to be popular, while there are many alternative studies on the development of other visual abilities in infants e.g. face recognition (e.g. Fantz), size and shape constancies (e.g. Bower). Accuracy in the description of studies is essential for marks beyond Basic. Although it is not necessary for candidates to cover all aspects of a study for full marks, procedures and findings/conclusions must be included for 4 marks. If only procedures OR findings/conclusions are outlined, a maximum of 2 AO1 marks may be awarded. Although unlikely, studies into perceptual development in non-human animals (e.g. studies using the visual cliff) would be relevant to this question part.

Theories of perceptual organisation, such as Gregory and Gibson, are not relevant to this question.

Examiners should be sensitive to the time constraints of this question part.

### AO1 4 marks knowledge and understanding

#### 4 marks Sound

Knowledge and understanding are accurate and well detailed.  
Organisation and structure of the answer are coherent  
There is reference to both procedures and findings/conclusions

#### 3 marks Reasonable

Knowledge and understanding are generally accurate and reasonably detailed.  
Organisation and structure of the answer are reasonably coherent  
There is reference to both procedures and findings/conclusions

#### 2 marks Basic

Knowledge and understanding are basic/relatively superficial  
Organisation and structure of the answer are basic  
Answer does not cover both procedures and findings/conclusions

#### 1 mark Rudimentary

Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate  
Lacks organisation and structure

#### 0 marks

no creditworthy material

### AO2/3 – 8 marks Evaluation of one study into perceptual development in infants

Evaluation of one study can follow various routes. Methodological evaluation, including ethical issues, is fully creditable and is the most likely source of AO2/3 marks given the many problems of doing research with infants, human or non-human. For marks in the higher bands the implications of methodological evaluation for the reliability and validity of findings should be explicit. The second major route is likely to be the implications of findings for e.g. the nature-nurture debate in relation to perceptual development in infants. Implications must be explicit and accurate for marks to be awarded.

Reference to other studies may also earn AO2/3 credit if embedded in an evaluation of the target study e.g. as clearly supporting or contradicting the findings.

Indicative issues, debates and approaches in the context of one study of perceptual development in infants include the nature-nurture debate, as referred to above. Any single study usually produces findings supporting one or other side of the debate, although no single study is decisive. Other IDA in this area may include cultural differences and biases, use of non-human animals in research, and the free will/determinism debate.

### **AO2/3 Mark bands – Best fit**

AO2/3 material should first be placed in the appropriate band according to the descriptors. However, not all the criteria need be satisfied for an answer to be placed in a particular band. Weak performance in one area may be compensated for by strong performance in others. In order to access the top band, issues and debates and/or approaches need to be addressed effectively.

### **AO2/3 8 Marks Evaluation**

#### **8-7 marks Effective**

Evaluation demonstrates sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and/or a clear line of argument. Issues/debates/approaches are used effectively. Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.

#### **6-5 marks Reasonable**

Evaluation demonstrates reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration and/or a line of argument is evident. Issues/debates/approaches are used in a reasonably effective manner. Most ideas appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling only occasionally compromise meaning.

#### **4-3 marks Basic**

Evaluation demonstrates basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Superficial reference may be made to issues/debates/approaches. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.

#### **2-1 marks Rudimentary**

Evaluation is rudimentary, demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant. If reference is made to issues/debates/approaches, it is muddled and inaccurate. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure, often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.

#### **0 marks**

No creditworthy material is presented.

## Topic: Perception

**Question 03** Discuss Bruce and Young's theory of face recognition.

(4 marks + 8 marks)

### AO1 = 4 marks      Outline of Bruce & Young's theory of face recognition

Given the marks available it is not necessary for candidates to outline all components of the Bruce & Young model for full marks. More important is that they demonstrate an understanding of general features of the model, and supplement this with reference to subcomponents. For instance, an outline that includes reference to a stage model, and to some stages being sequential and some working in parallel, combined with a brief outline of e.g. expression analysis and face recognition units, would earn 4 marks. A listing of two or more subcomponents without reference to overall features of the model would receive a maximum of 2 marks. Candidates need not refer to the updated version of the model published recently.

Diagrams can be an effective way of presenting the model, but there must be some indication of *process* as well as key components for marks above Basic, e.g. through use of directional arrows.

Examiners should be sensitive to the time constraints of this question part.

### AO1 4 marks knowledge and understanding

<p><b>4 marks Sound</b>          Knowledge and understanding are accurate and well detailed.          Organisation and structure of the answer are coherent</p>
<p><b>3 marks Reasonable</b>          Knowledge and understanding are generally accurate and reasonably detailed.          Organisation and structure of the answer are reasonably coherent</p>
<p><b>2 marks Basic</b>          Knowledge and understanding are basic/relatively superficial          Organisation and structure of the answer are basic</p>
<p><b>1 mark Rudimentary</b>          Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate          Lacks organisation and structure</p>
<p><b>0 marks</b>          no creditworthy material</p>

### AO2/3 – 8 marks      Commentary/Evaluation of Bruce & Young's theory of face recognition

Commentary/evaluation of the Bruce and Young model should focus on the wealth of research evidence. There are many studies on both neurotypicals and on case studies of brain-damaged patients (e.g. prosopagnosics) that provide both support and some contradictory findings relevant to the model. The key to marks in the higher bands will be the extent to which candidates link findings to specific aspects of the model e.g. whether they provide support for specific modules within the model, such as the distinction between face recognition units and name generation. Alternative interpretations of data would also be an effective source of AO2/3 material. Methodological evaluation of studies is likely to be popular, but may only earn marks if implications for the *theory* are explicit i.e. commentary on ethical issues is unlikely to be creditworthy, while references to the limitations of case studies may well earn AO2/3 marks.



Indicative issues, debates and approaches in the context of the Bruce & Young theory of face recognition include reductionism and holism – the model breaks face recognition down into several subcomponents and strategies, as opposed to approaches that emphasise the holistic aspects of face recognition. Other IDA in this area might include the applications of findings e.g. to interpreting the effects of brain damage.

### **AO2/3 Mark bands – Best fit**

AO2/3 material should first be placed in the appropriate band according to the descriptors. However, not all the criteria need be satisfied for an answer to be placed in a particular band. Weak performance in one area may be compensated for by strong performance in others. In order to access the top band, issues and debates and/or approaches need to be addressed effectively.

### **AO2/3 8 Marks Evaluation**

#### **8-7 marks Effective**

Commentary/evaluation demonstrates sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and/or a clear line of argument. Issues/debates/approaches are used effectively. Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.

#### **6-5 marks Reasonable**

Commentary/evaluation demonstrates reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration and/or a line of argument is evident. Issues/debates/approaches are used in a reasonably effective manner. Most ideas appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling only occasionally compromise meaning.

#### **4-3 marks Basic**

Commentary/evaluation demonstrates basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Superficial reference may be made to issues/debates/approaches. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.

#### **2-1 marks Rudimentary**

Commentary/evaluation is rudimentary, demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant. If reference is made to issues/debates/approaches, it is muddled and inaccurate. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure, often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.

#### **0 marks**

No creditworthy material is presented.

## Topic: Relationships

**Question 04** Outline and evaluate **one** theory of the maintenance of romantic relationships.  
(4 marks + 8 marks)

### AO1 = 4 marks Outline of one theory of the maintenance of romantic relationships

A variety of theories can be used to explain the maintenance of romantic relationships. Economic models such as social exchange theory, equity theory and investment models focusing on rewards and costs of relationships, are concerned with the maintenance of relationships, but this needs to be explicit for marks in the top band. Other approaches, such as filter theory, reward/need satisfaction or the matching hypothesis focus on formation and can only earn marks if there is some convincing and explicit justification for their relevance to maintenance. A similar argument applies to evolutionary approaches; these can be relevant to both formation and maintenance of relationships, so marks awarded will depend upon the degree to which the focus is clearly on maintenance.

Where candidates explicitly present two or models under a single umbrella term such as economic theories, they can be treated as one theory for the purposes of this question. However examiners should also be sensitive to the time constraints of this question part.

### AO1 4 marks knowledge and understanding

#### 4 marks Sound

Knowledge and understanding are accurate and well detailed.  
Organisation and structure of the answer are coherent

#### 3 marks Reasonable

Knowledge and understanding are generally accurate and reasonably detailed.  
Organisation and structure of the answer are reasonably coherent

#### 2 marks Basic

Knowledge and understanding are basic/relatively superficial  
Organisation and structure of the answer are basic

#### 1 mark Rudimentary

Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate  
Lacks organisation and structure

#### 0 marks

no creditworthy material

### AO2/3 – 8 marks Evaluation of one theory of the maintenance of romantic relationships

For each of the major models, such as Rusbult & van Lange's investment model, there is some research support that can be used as an effective source of AO2/3; in turn some of these studies can be criticised as lacking ecological validity and generalisability. Economic models also suffer from a restricted view of people and what they look for in relationships, ignoring concepts such as fairness. Also relevant is the ability of different theories to explain e.g. people who stay in abusive relationships, the maintenance of gay and lesbian relationships, or gender differences in attitudes to long-term relationships.

Alternative theories may be used to evaluate the target theory, but may receive credit only if used as part of sustained and effective evaluation and not simply discussed in their own right.

Indicative issues, debates and approaches in the context of one theory of the maintenance of romantic relationships include cultural differences and biases. Research has been mostly conducted from a Western point of view, ignoring factors more relevant to less developed societies. Other relevant IDA may include gender differences and biases, and ethical issues/socially sensitive research

**AO2/3 Mark bands – Best fit**

AO2/3 material should first be placed in the appropriate band according to the descriptors. However, not all the criteria need be satisfied for an answer to be placed in a particular band. Weak performance in one area may be compensated for by strong performance in others. In order to access the top band, issues and debates and/or approaches need to be addressed effectively.

**AO2/3 8 Marks Evaluation****8-7 marks Effective**

Evaluation demonstrates sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and/or a clear line of argument. Issues/debates/approaches are used effectively. Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.

**6-5 marks Reasonable**

Evaluation demonstrates reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration and/or a line of argument is evident. Issues/debates/approaches are used in a reasonably effective manner. Most ideas appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling only occasionally compromise meaning.

**4-3 marks Basic**

Evaluation demonstrates basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Superficial reference may be made to issues/debates/approaches. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.

**2-1 marks Rudimentary**

Evaluation is rudimentary, demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant. If reference is made to issues/debates/approaches, it is muddled and inaccurate. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure, often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.

**0 marks**

No creditworthy material is presented.

## Topic: Relationships

**Question 05** Discuss research into the influence of culture on romantic relationships.  
(4 marks + 8 marks)

**AO1 = 4 marks**      **Outline of research into the influence of culture on romantic relationships**

As the term 'research' refers to both theory/explanations and to research studies, there are two possible routes through this question. Candidates may choose to present as their AO1 material an outline of *how* culture might influence romantic relationships. This might include cultural differences in attitudes to the role of romantic love, voluntary versus involuntary (arranged) marriages, or variations in attitudes to divorce across different cultures. AO2 /3 material would then become the findings of research studies that confirm or contradict some of these influences.

An alternative approach would be for candidates to present the findings of research studies as AO1 material, with the implications of these findings being the main source of AO2/3 credit.

Whether used as AO1 or AO2/3 material, there are many research studies in this area that can be used – for instance, Jankowiak (1995) and attitudes to 'love' in 166 different cultures, Yelsma & Athappilly, 1988 and Xiaohe & Whyte, 1990, on the relative 'happiness' of arranged and voluntary marriages, or Zaidi & Shuraydi (2002) on the effects of acculturation on cultural attitudes to marriage.

Some candidates may choose to discuss subgroups within a culture such as people involved in online relationships. This approach can only earn marks if there is some explicit justification for the use of the term 'culture' in relation to such groups. Buss's cross-cultural study of mate preferences is part of the evolutionary approach, emphasising the lack of cultural differences in mate choice, but could be made relevant to this question part and earn marks as long as the focus is on romantic relationships.

Examiners should be sensitive to the time constraints of this question part.

### AO1 4 marks knowledge and understanding

<b>4 marks Sound</b> Knowledge and understanding are accurate and well detailed. Organisation and structure of the answer are coherent
<b>3 marks Reasonable</b> Knowledge and understanding are generally accurate and reasonably detailed. Organisation and structure of the answer are reasonably coherent
<b>2 marks Basic</b> Knowledge and understanding are basic/relatively superficial Organisation and structure of the answer are basic
<b>1 mark Rudimentary</b> Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate Lacks organisation and structure
<b>0 marks</b> no creditworthy material

**AO2/3 – 8 marks      Commentary on research into the influence of culture on romantic relationships**

If AO1 material consists of the findings of research studies, then the implications of these findings would be credited as AO2 /3. Research studies from Hofstede's (1980) pioneering work onwards (including those mentioned above) can be used to support cultural distinctions in attitudes to romantic relationships. However increased mobility and integration has also pointed to a lessening of cultural differences e.g. the increasingly voluntary nature of marriages in British Hindu communities. Commentary might include medium and long-term outcomes of marriages in individualistic and collectivist societies in relation to Western notions of 'romantic love'. A further point would be that the terms 'individualistic' and 'collectivist' may themselves obscure cultural differences within these two types of social organisation.

If AO1 material consists of an outline of the effects of culture on romantic relationships, then the findings of research studies used to support/contradict these effects would be a key source of AO2/3 material. Note that methodological evaluation of studies is likely to be popular. As always, the 'shaping' of this material to the question is critical in awarding marks. Evaluation that refers explicitly to e.g. problems with validity/reliability/generalisability of findings and/or implications for theories/explanations may be creditworthy, while reference to ethical issues is unlikely to qualify.

Indicative issues, debates and approaches in the context of cultural influences on romantic relationships include cultural biases. Research in this area may have cultural bias built-in in terms of the research questions asked, the questionnaires used etc. Other relevant IDA may include the debate over socially-sensitive research, and gender differences.

**AO2/3 Mark bands – Best fit**

AO2/3 material should first be placed in the appropriate band according to the descriptors. However, not all the criteria need be satisfied for an answer to be placed in a particular band. Weak performance in one area may be compensated for by strong performance in others. In order to access the top band, issues and debates and/or approaches need to be addressed effectively.

**AO2/3 8 Marks Evaluation****8-7 marks Effective**

Commentary demonstrates sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and/or a clear line of argument. Issues/debates/approaches are used effectively. Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.

**6-5 marks Reasonable**

Commentary demonstrates reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration and/or a line of argument is evident. Issues/debates/approaches are used in a reasonably effective manner. Most ideas appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling only occasionally compromise meaning.

**4-3 marks Basic**

Commentary demonstrates basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Superficial reference may be made to issues/debates/approaches. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.

**2-1 marks Rudimentary**

Commentary is rudimentary, demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant. If reference is made to issues/debates/approaches, it is muddled and inaccurate. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure, often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.

**0 marks**

No creditworthy material is presented.

## Topic: Aggression

**Question 06** Outline an evolutionary explanation of **one** example of group display in humans. (4 marks)

**AO1 = 4 marks**      **Outline of an evolutionary explanation of one example of group display in humans**

Although there is a range of possible explanations available to candidates they must include key characteristics. In particular they must relate to group display i.e. the evolutionary advantages of being a member of a group. The evolutionary background comes from natural selection and updated versions such as the selfish gene; the original imperative was to pass on one's genes. In warfare, for instance, group membership gives the individual a greater chance of survival and also the chance to show off their bravery as a warrior (and so attract mates). It is also aimed at gaining or defending resources (territory, food, mates). This model can be straightforwardly related to modern day examples such as sports teams (the New Zealand rugby team and their 'haka' is an excellent example), where the whole approach is aggressive and success is closely related to status.

Examples such as lynch mobs are not explanations, but may earn marks if used to demonstrate *understanding* of a particular explanation (e.g. the evolutionary imperative of competition for resources combined with ingroups and outgroups). If more than one example of group display is presented, all should be marked and the best one credited.

Outline of a potential evolutionary explanation of group display that is not explicitly linked to group display in humans can earn a maximum of 1 mark. Examples of group display with no reference to evolutionary explanations, zero marks.

Examiners should be sensitive to the time constraints of this question part.

### AO1 4 marks knowledge and understanding

<b>4 marks Sound</b>
Knowledge and understanding are accurate and well detailed. Organisation and structure of the answer are coherent
<b>3 marks Reasonable</b>
Knowledge and understanding are generally accurate and reasonably detailed. Organisation and structure of the answer are reasonably coherent
<b>2 marks Basic</b>
Knowledge and understanding are basic/relatively superficial Organisation and structure of the answer are basic
<b>1 mark Rudimentary</b>
Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate Lacks organisation and structure
<b>0 marks</b>
no creditworthy material

## Topic: Aggression

**Question 07** Discuss genetic factors involved in aggressive behaviour.

(4 marks + 16 marks)

**AO1 = 4 marks**      **Outline of genetic factors involved in aggressive behaviour**

AO1 marks will be earned by an outline of potential genetic factors involved in aggressive behaviour. Given the range of potential genetic factors and the fact that only 4 marks are available for this question part, research studies (e.g. twin studies) should be credited as AO2/3 material, and not as AO1 illustrations of possible factors.

A number of such factors have been proposed over the years, including the XYY genotype, genes for dopaminergic and serotonergic receptors, and the MAOA gene. One complication in this area is that contradictory results implicate both increases and decreases in e.g. serotonin levels, in aggression. Examiners therefore need to be aware of such contradictions when assessing answers.

Genetic approaches often implicate neurotransmitters and an outline of these relationships would be part of genetic factors in aggression. Answers that focus only on neurotransmitters cannot earn marks in this question part, although if a general link between e.g. neurotransmitters and genetics is made, it need not be detailed for the full range of marks to be available. Similarly with hormones such as testosterone and cortisol. Unless there is some explicit link to genetic factors such answers cannot earn marks in this question part.

Evolutionary explanations are part of the genetic approach, and as long as the focus is on genetic aspects of evolutionary explanations of aggressive behaviour, such answers can earn AO1 marks across the scale.

The question refers only to ‘aggressive behaviour’ and material relevant to both humans and non-human animals is therefore creditable.

Note that although the question refers to ‘factors’, there are no partial performance criteria on this question part. Answers providing detailed outlines of one factor may earn AO1 marks in the top band, while examiners should also be sensitive to depth-breadth trade-offs in answers that cover more than one factor.

Examiners should be sensitive to the time constraints of this question part.

### AO1 4 marks knowledge and understanding

<p><b>4 marks Sound</b>            Knowledge and understanding are accurate and well detailed.            Organisation and structure of the answer are coherent</p>
<p><b>3 marks Reasonable</b>            Knowledge and understanding are generally accurate and reasonably detailed.            Organisation and structure of the answer are reasonably coherent</p>
<p><b>2 marks Basic</b>            Knowledge and understanding are basic/relatively superficial            Organisation and structure of the answer are basic</p>
<p><b>1 mark Rudimentary</b>            Knowledge and understanding are rudimentary and may be very brief, muddled and/or inaccurate            Lacks organisation and structure</p>
<p><b>0 marks</b>            no creditworthy material</p>



**AO2/3 – 16 marks    Commentary on genetic factors involved in aggressive behaviour**

The most effective source of AO2/3 marks is likely to be the use of research evidence to establish the contribution of particular genetic factors to aggressive behaviour. This may range from MZ/DZ twin and adoption studies investigating genetic factors in aggressive behaviour, to specific investigations of candidate genes such as MAOA, and breeding studies with non-human animals. There are a large number of accessible studies and a key feature will be the extent to which findings are appropriately interpreted and developed into a line of argument. Methodological evaluation of studies may only earn AO2/3 marks if the implications for the reliability/validity of findings in relation to genetic factors in aggression are explicit. It is therefore unlikely that e.g. ethical issues would earn AO2/3 marks.

Commentary can include the complexity of aggressive behaviour and the likely interaction between genetic and environmental factors. Alternative explanations of aggression, such as hormones and social psychological approaches, may earn marks if used as part of sustained and effective evaluation of genetic mechanisms.

Indicative issues, debates and approaches in the context of genetic factors in aggressive behaviour include reductionism. The genetic approach is as low a level of explanation as is possible and is highly reductionist. This does not mean that it is wrong, simply that by ignoring higher level influences such as social and cultural factors it may not provide a complete explanation of aggressive behaviour. Other relevant IDA may include the nature /nurture and the free will/determinism debate, gender differences, and socially sensitive research.

**AO2/3 Mark bands – Best fit**

AO2/3 material should first be placed in the appropriate band according to the descriptors. However, not all the criteria need be satisfied for an answer to be placed in a particular band. Weak performance in one area may be compensated for by strong performance in others. In order to access the top band, issues and debates and/or approaches need to be addressed effectively.

**AO2/3 16 Marks Commentary****16-13 marks Effective**

Commentary demonstrates sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and/or a clear line of argument. Issues/debates/approaches are used effectively. Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.

**12-9 marks Reasonable**

Commentary demonstrates reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration and/or a line of argument is evident. Issues/debates/approaches are used in a reasonably effective manner. Most ideas appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling only occasionally compromise meaning.

**8-5 marks Basic**

Commentary demonstrates basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Superficial reference may be made to issues/debates/approaches. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.

**4-1 marks Rudimentary**

Commentary is rudimentary, demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant. If reference is made to issues/debates/approaches, it is muddled and inaccurate. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure, often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.

**0 marks**

No creditworthy material is presented.

**Topic: Eating Behaviour**

**Question 08** Outline and evaluate **one** psychological explanation and **one** biological explanation of **one** eating disorder. *(8 marks + 16 marks)*

**AO1 = 8 marks**      **Outline of one psychological and one biological explanation of one eating disorder**

Eating disorders in the Specification are anorexia nervosa, bulimia nervosa and obesity. For AO1 marks candidates are required to outline one psychological and one biological explanation of their chosen disorder. For each of the disorders there is a range of potential explanations: e.g.

for anorexia nervosa: cognitive, social learning and psychoanalytic approaches; the role of serotonin and the hypothalamus; genetics; the evolutionary approach

for bulimia nervosa: cognitive, social learning and psychoanalytic approaches; genetics

for obesity: socio-cultural factors such as changes to the built environment, accessibility of high carbohydrate foods and lifestyle changes (these would be creditable together under the umbrella term of a psychological or socio-cultural explanation); body weight control systems; genome lag

Although two explanations have to be outlined there still needs to be reasonably accurate detail for AO1 marks above Basic. This is a particular issue for psychological explanations such as social learning theory and psychoanalytic approaches; there must be some reference to underlying psychological processes for marks in the higher bands.

Note that evolutionary models of any of these disorders would be considered part of the biological approach. Note also, as mentioned above, that it is acceptable for two or more explanations to be accepted under an umbrella term such as 'the behavioural approach' or the 'biological approach'.

The question requires coverage of one psychological and one biological explanation. Candidates outlining only one are demonstrating partial performance and can receive a maximum of 4 marks for AO1 and 8 marks for AO2/3. If more than one psychological or biological explanation is covered, all should be marked and the best one credited.

Note that answers with a clear lack of balance in coverage of psychological and biological explanations (close to partial performance) can receive a maximum mark at the top of Basic. Answers with some imbalance can receive a maximum mark at the top of 'Reasonable'.

It is unlikely but possible that a candidate may interpret the question as requiring one psychological explanation of one disorder and one biological explanation of a second disorder. This is a valid though unintended interpretation of the question and such answers can receive marks across the board.

**AO1 8 marks knowledge and understanding****8-7 marks Sound**

Knowledge and understanding are accurate and well detailed.  
 A good range of relevant material has been selected  
 There is a reasonable balance between the two explanations  
 Organisation and structure of the answer are coherent

**6-5 marks Reasonable**

Knowledge and understanding are generally accurate and reasonably detailed.  
 A range of relevant material has been selected  
 There is some lack of balance between the two explanations  
 Organisation and structure of the answer are reasonably coherent

**4-3 marks Basic**

Knowledge and understanding are basic/relatively superficial  
 A restricted range of material has been presented  
 There is a clear imbalance between the two explanations  
 Organisation and structure of the answer are basic  
*Partial performance is Sound (max 4 marks)*

**2-1 mark Rudimentary**

Knowledge and understanding are rudimentary and may be muddled and/or inaccurate  
 The material presented may be very brief or largely irrelevant  
 Lacks organisation and structure  
*Partial performance is Basic (1 mark) or Reasonable (2 marks)*

**0 marks**

no creditworthy material

**AO2/3 – 16 marks Evaluation of one psychological and one biological explanation for an eating disorder**

Sources of AO2/3 marks will depend upon which disorder is chosen and which explanations are discussed. In some areas (e.g. social learning theory and anorexia nervosa; metabolic rate in obesity) there is research evidence that would provide very effective AO2/3; this includes cross-cultural and twin studies. In other areas, besides research evidence, commentary could cover some extremely critical points; why only some young girls seem susceptible to media images, conditions such as obesity probably involving more than one single explanation; the interplay between psychological and biological factors in all disorders.

Effective methodological evaluation could include the problems of demonstrating that e.g. increasing car use and sedentary pastimes have a cause-effect relationship with obesity; or that low self-esteem and body image disturbance have cause-effect relationships with bulimia nervosa; or that physiological and neural changes in anorexia nervosa are causes and not consequences of weight loss. Note that methodological evaluation of studies that is not related explicitly to explanations cannot earn AO2/3 credit.

Alternative explanations may earn AO2/3 marks if used as sustained and effective evaluation of the target explanations.

As with AO1, there needs to be a reasonable balance in evaluation of two explanations for marks in the top band. For answers where there is imbalance in evaluation, see AO2/3 mark bands.

Indicative issues, debates and approaches in the context of explanations of one eating disorder include gender and cultural differences. Sufferers from anorexia nervosa and bulimia nervosa are predominantly female and they occur far more frequently in western developed societies. Obesity affects both women and men but is again more common in

developed societies. Other relevant IDA may include reductionism, nature/nurture, applications of findings and socially-sensitive research.

### AO2/3 Mark bands – Best fit

AO2/3 material should first be placed in the appropriate band according to the descriptors. However, not all the criteria need be satisfied for an answer to be placed in a particular band. Weak performance in one area may be compensated for by strong performance in others. In order to access the top band, issues and debates and/or approaches need to be addressed effectively.

### AO2/3 16 Marks Evaluation

#### 16-13 marks Effective

Evaluation demonstrates sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and/or a clear line of argument. There is a reasonable balance in evaluation of the two explanations. Issues/debates/approaches are used effectively. Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.

#### 12-9 marks Reasonable

Evaluation demonstrates reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration and/or a line of argument is evident. There is some imbalance in evaluation of the two explanations. Issues/debates/approaches are used in a reasonably effective manner. Most ideas appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling only occasionally compromise meaning.

#### 8-5 marks Basic

Evaluation demonstrates basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. There is a clear imbalance in evaluation of the two explanations. Superficial reference may be made to issues/debates/approaches. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.  
*Partial performance is Effective (max 8 marks)*

#### 4-1 marks Rudimentary

Evaluation is rudimentary, demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant. If reference is made to issues/debates/approaches, it is muddled and inaccurate. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure, often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.  
*Partial performance is Basic (up to 2 marks) or Reasonable (3 or 4 marks)*

#### 0 marks

No creditworthy material is presented.

**Topic: Gender****Question 09** Discuss Kohlberg's theory of gender development. (8 marks + 16 marks)**AO1 = 8 marks Outline of Kohlberg's theory of gender development**

However detailed the description of the stages of Kohlberg's theory, it does not accurately reflect the full theory, and can therefore earn a maximum of 6 marks for AO1. To move into the top band there needs to be some detail of underlying processes, concepts or assumptions of the theory e.g. maturation, universality, socialisation etc. The stages themselves are: gender identity, gender stability, gender constancy (or consistency). Each stage has particular characteristics and occurs at specified ages (e.g. 2-3 years old, 3-7 years old, 7-12 years old). Although absolute precision in relation to ages is not required for marks in the top bands, they should be within reasonable limits. Note that candidates often confuse gender stability (the idea that gender is permanent and unchangeable, that they were always male or female and will always be male or female), with gender constancy/consistency (the idea that even if girls wear jeans or cut their hair short, they still remain girls). It is essential that answers above Basic are reasonably accurate and detailed.

Kohlberg's theory of gender development is separate from his theory of moral development, and material on the latter cannot earn marks. However such answers should be read carefully for any relevant material.

**AO1 8 marks knowledge and understanding**

<p><b>8-7 marks Sound</b>  Knowledge and understanding are accurate and well detailed.  A good range of relevant material has been selected  Organisation and structure of the answer are coherent</p>
<p><b>6-5 marks Reasonable</b>  Knowledge and understanding are generally accurate and reasonably detailed.  A range of relevant material has been selected  Organisation and structure of the answer are reasonably coherent</p>
<p><b>4-3 marks Basic</b>  Knowledge and understanding are basic/relatively superficial  A restricted range of material has been presented  Organisation and structure of the answer are basic</p>
<p><b>2-1 mark Rudimentary</b>  Knowledge and understanding are rudimentary and may be muddled and/or inaccurate  The material presented may be very brief or largely irrelevant  Lacks organisation and structure</p>
<p><b>0 marks</b>  no creditworthy material</p>

**AO2/AO3 = 16 marks Evaluation of Kohlberg's theory of gender development**

An effective source of AO2/AO3 marks would be relevant research evidence, either from Kohlberg himself or from other investigators. Detail and interpretation of e.g. the classic Slaby & Frey study must be accurate for marks above Basic. In general Kohlberg's sequence of stages has been supported. However subsequent research (e.g. emerging from gender schema theory) has suggested that gender development (e.g. sex-role stereotyping) may begin earlier than Kohlberg suggests. Issues of cultural bias would be relevant. Other approaches, such as gender schema theory or the biological and psychodynamic perspectives, may earn AO2/AO3 marks if used as sustained and effective evaluation of Kohlberg.

Additional routes to AO2/AO3 credit include the methodological evaluation of relevant research evidence, as long as the implications for Kohlberg's theory are clear i.e. issues of informed consent and psychological damage are unlikely to be creditworthy.

Indicative issues/debates/approaches in the context of Kohlberg's cognitive developmental theory of gender development: approaches – cognitive and developmental, biological, behavioural, psychodynamic: gender and cultural issues. For instance, there is research evidence that there may be gender differences in gender development that Kohlberg does not allow for.

**AO2/3 Mark bands – Best fit**

AO2/3 material should first be placed in the appropriate band according to the descriptors. However, not all the criteria need be satisfied for an answer to be placed in a particular band. Weak performance in one area may be compensated for by strong performance in others. In order to access the top band, issues and debates and/or approaches need to be addressed effectively.

**AO2/3 16 Marks Evaluation****16-13 marks Effective**

Evaluation demonstrates sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and/or a clear line of argument. Issues/debates/approaches are used effectively. Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.

**12-9 marks Reasonable**

Evaluation demonstrates reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration and/or a line of argument is evident. Issues/debates/approaches are used in a reasonably effective manner. Most ideas appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling only occasionally compromise meaning.

**8-5 marks Basic**

Evaluation demonstrates basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Superficial reference may be made to issues/debates/approaches. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.

**4-1 marks Rudimentary**

Evaluation is rudimentary, demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant.

If reference is made to issues/debates/approaches, it is muddled and inaccurate. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure, often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.

**0 marks**

No creditworthy material is presented.

**Topic: Intelligence and Learning**

**Question 10** Discuss research into genetic and/or environmental factors associated with intelligence test performance. (8 marks + 16 marks)

**AO1 = 8 marks****Outline of research into genetic and/or environmental factors associated with intelligence test performance**

As the term 'research' can refer to either theories/explanations or to research studies, there are two possible routes through this question. Most likely candidates will present a number of studies without any specific context setting at the start. These studies then become AO1 material, while the implications of the findings become a source of AO2/3 credit. These implications could, of course, include broader ideas such as the nature-nurture debate.

Alternatively candidates may present research findings explicitly in the context of e.g. the nature-nurture debate, or a listing of factors influencing IQ e.g. environmental influences. An initial outline of the debate or list of factors (which represents theories/explanations relevant to intelligence test performance) then becomes AO1 and relevant research findings become AO2/3 material.

Whether used as AO1 or AO2/3 material, a variety of studies have investigated genetic and environmental contributions to intelligence test performance, in particular twin studies and cross-cultural studies. It is important that answers above Basic demonstrate understanding of the rationale behind twin studies. Other studies have investigated a range of environmental factors implicated in IQ, including parental and school influences, socio-economic status, and cultural variables.

The Specification refers to 'intelligence test performance' and candidates are expected to focus on IQ as measured through these tests. However some candidates may refer to aspects of intelligence and intelligent behaviour other than IQ scores. Such answers can receive a maximum mark at the top of 'Reasonable' for AO1 and AO2/3.

**AO1 8 marks knowledge and understanding****8-7 marks Sound**

Knowledge and understanding are accurate and well detailed.  
A good range of relevant material has been selected  
There is substantial evidence of breadth and depth.  
Organisation and structure of the answer are coherent

**6-5 marks Reasonable**

Knowledge and understanding are generally accurate and reasonably detailed.  
A range of relevant material has been selected  
There is evidence of breadth and/or depth.  
Organisation and structure of the answer are reasonably coherent

**4-3 marks Basic**

Knowledge and understanding are basic/relatively superficial  
A restricted range of material has been presented  
Organisation and structure of the answer are basic



<p><b>2-1 mark Rudimentary</b>  Knowledge and understanding are rudimentary and may be muddled and/or inaccurate  The material presented may be very brief or largely irrelevant  Lacks organisation and structure</p>
<p><b>0 marks</b>  no creditworthy material</p>

**AO2/3 – 16 marks    Commentary on research into genetic and/or environmental factors associated with intelligence test performance**

If research studies and their findings are presented as AO1 material, then the implications of the findings for e.g. the nature-nurture debate, would provide effective AO2/3 material. For marks in the higher bands answers should demonstrate clear understanding of the relevance and interpretation of e.g. MZ/DZ concordance rates in twin studies.

If the candidate has clearly focused on the nature-nurture debate as the context for their answer, then the findings of research studies should be the main source of AO2/3 credit. Implications of the findings for the nature-nurture debate should be explicit.

Whatever approach is taken, commentary on research into genetic and/or environmental factors associated with intelligence test performance (IQ) is likely to focus on some of the many research studies in this area. MZ/DZ twin studies have a long history and provide material for both genetic and environmental camps. Enrichment and educational intervention programmes are also central to this area, while general observations such as the Flynn effect may be used as relevant to the environmental approach.

There are several major controversies in this area that candidates are likely to bring up in their general discussion. These include the nature of intelligence, the problem of disentangling genetic and environmental influences, what exactly is being measured by IQ tests, the origin of IQ differences between ethnic groups, and the notion of 'culture-fair' tests. If these are set in the context of the question (the association between genetic and/or environmental factors and intelligence test performance) then they may earn credit. Some, such as the controversy over Burt's so-called 'faked' results, may be described in detail but are not directly relevant to the question and are unlikely to earn AO2/3 marks unless their impact on the genetics/IQ debate is explicit.

Indicative issues, debates and approaches in the context of genetic and/or environmental factors in intelligence test performance include the central nature/nurture debate and the implications of the debate for e.g. educational policy and ethnic differences in IQ scores. Other relevant IDA may include gender and cultural differences and biases, free will/determinism (especially the distinction between genetically-based 'hard' determinism and environmentally-driven 'soft' determinism), and the ethics of socially sensitive research.

**AO2/3 Mark bands – Best fit**

AO2/3 material should first be placed in the appropriate band according to the descriptors. However, not all the criteria need be satisfied for an answer to be placed in a particular band. Weak performance in one area may be compensated for by strong performance in others. In order to access the top band, issues and debates and/or approaches need to be addressed effectively.

**AO2/3 16 Marks Evaluation****16-13 marks Effective**

Commentary demonstrates sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and/or a clear line of argument. Issues/debates/approaches are used effectively. Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.

**12-9 marks Reasonable**

Commentary demonstrates reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration and/or a line of argument is evident. Issues/debates/approaches are used in a reasonably effective manner. Most ideas appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling only occasionally compromise meaning.

**8-5 marks Basic**

Commentary demonstrates basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Superficial reference may be made to issues/debates/approaches. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.

**4-1 marks Rudimentary**

Commentary is rudimentary, demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant. If reference is made to issues/debates/approaches, it is muddled and inaccurate. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure, often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.

**0 marks**

No creditworthy material is presented.

## Topic: Cognition and Development

**Question 11** Outline and evaluate Vygotsky's theory of cognitive development.  
(8 marks + 16 marks)

### AO1 = 8 marks      Outline of Vygotsky's theory of cognitive development

Vygotsky's theory of cognitive development can be described at various levels. He emphasises the sociocultural context of cognitive development and the key role of language. Other important ideas include the zone of proximal development (ZPD) and the importance of the instructor and scaffolding. At a more detailed level he proposes stages of concept formation (vague syncretic etc.) and also proposes different functions for speech at different stages of development.

Vygotsky's stages of speech: pre-intellectual or social speech (0 – 3 years old), egocentric speech (3 – 7 years old), inner speech (7+ years old).

Stages of concept formation: vague-syncretic (trial and error); complex (appropriate strategies, but main attributes not identified); potential concept stage (identify one attribute or feature at a time); mature concept stage (identify several attributes/features at a time).

Not all of Vygotsky's ideas are necessary for marks in the top band. However, while there must be a good range of material that is presented with accuracy and detail - e.g. outlines of the role of culture and language, the ZPD, and an outline of the stages of concept formation - there must also be a sense of coherence that provides a rounded view of Vygotsky's theory.

### AO1 8 marks knowledge and understanding

#### 8-7 marks Sound

Knowledge and understanding are accurate and well detailed  
A good range of relevant material has been selected  
There is substantial evidence of breadth and depth  
Organisation and structure of the answer are coherent

#### 6-5 marks Reasonable

Knowledge and understanding are generally accurate and reasonably detailed.  
A range of relevant material has been selected  
There is evidence of breadth and/or depth  
Organisation and structure of the answer are reasonably coherent

#### 4-3 marks Basic

Knowledge and understanding are basic/relatively superficial  
A restricted range of material has been presented  
Organisation and structure of the answer are basic

#### 2-1 mark Rudimentary

Knowledge and understanding are rudimentary and may be muddled and/or inaccurate  
The material presented may be very brief or largely irrelevant  
Lacks organisation and structure

#### 0 marks

no creditworthy material

### AO2/3 – 16 marks Evaluation of Vygotsky's theory of cognitive development

Although relatively understudied relative to Piaget's theory there are by now a number of accessible studies that examine various aspects of Vygotsky's model. In particular the zone

of proximal development and the role of the instructor have been investigated (e.g. Mc Naughton & Leyland, 1990). Another important area for evaluating the theory is through its applications to education, for instance the teacher's role in the ZPD and scaffolding, peer tutoring, the importance of language and inner speech in early learning.

Further commentary might include the cultural relativity of Vygotsky's work, and his overemphasis on sociocultural factors at the expense of biological influences on cognitive development. Candidates may introduce alternative theories such as Piaget's, and these can earn AO2/3 marks if used as part of sustained and effective evaluation of Vygotsky's ideas. However the focus must remain on Vygotsky, and overlong descriptions of Piaget's theory and associated research will not move out of rudimentary.

Indicative issues, debates and approaches in the context of Vygotsky's theory of cognitive development include applications of elements of the theory to education, as mentioned above in relation to the zone of proximal development. Other relevant IDA may include the nature/nurture debate and the relative roles of innate mechanisms versus the influence of society/culture.

### **AO2/3 Mark bands – Best fit**

AO2/3 material should first be placed in the appropriate band according to the descriptors. However, not all the criteria need be satisfied for an answer to be placed in a particular band. Weak performance in one area may be compensated for by strong performance in others. In order to access the top band, issues and debates and/or approaches need to be addressed effectively.

### **AO2/3 16 Marks Evaluation**

#### **16-13 marks Effective**

Evaluation demonstrates sound analysis, understanding and interpretation. The answer is well focused and shows coherent elaboration and/or a clear line of argument. Issues/debates/approaches are used effectively. Ideas are well structured and expressed clearly and fluently. Consistently effective use of psychological terminology. Appropriate use of grammar, punctuation and spelling.

#### **12-9 marks Reasonable**

Evaluation demonstrates reasonable analysis and understanding. The answer is generally focused and shows reasonable elaboration and/or a line of argument is evident. Issues/debates/approaches are used in a reasonably effective manner. Most ideas appropriately structured and expressed clearly. Appropriate use of psychological terminology. Minor errors of grammar, punctuation and spelling only occasionally compromise meaning.

#### **8-5 marks Basic**

Evaluation demonstrates basic, superficial understanding. The answer is sometimes focused and shows some evidence of elaboration. Superficial reference may be made to issues/debates/approaches. Expression of ideas lacks clarity. Limited use of psychological terminology. Errors of grammar, punctuation and spelling are intrusive.

#### **4-1 marks Rudimentary**

Evaluation is rudimentary, demonstrating a very limited understanding. The answer is weak, muddled and incomplete. Material is not used effectively and may be mainly irrelevant. If reference is made to issues/debates/approaches, it is muddled and inaccurate. Deficiency in expression of ideas results in confusion and ambiguity. The answer lacks structure, often merely a series of unconnected assertions. Errors of grammar, punctuation and spelling are frequent and intrusive.

#### **0 marks**

No creditworthy material is presented.
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## Assessment Objectives

Question	AO1	AO2/A03	Total
01	8	16	24
<b>Total</b>	<b>8</b>	<b>16</b>	<b>24</b>
02	4	8	12
03	4	8	12
<b>Total</b>	<b>8</b>	<b>16</b>	<b>24</b>
04	4	8	12
05	4	8	12
<b>Total</b>	<b>8</b>	<b>16</b>	<b>24</b>
06	4		4
07	4	16	20
<b>Total</b>	<b>8</b>	<b>16</b>	<b>24</b>
08	8	16	24
<b>Total</b>	<b>8</b>	<b>16</b>	<b>24</b>
09	8	16	24
<b>Total</b>	<b>8</b>	<b>16</b>	<b>24</b>
10	8	16	24
<b>Total</b>	<b>8</b>	<b>16</b>	<b>24</b>
11	8	16	24
<b>Total</b>	<b>8</b>	<b>16</b>	<b>24</b>