GCSE 2004 June Series



Mark Scheme

PSYCHOLOGY (Subject Code 3181H)

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Dr Michael Cresswell Director General

SECTION A - COGNITIVE PSYCHOLOGY

1 Total for this question: 30 marks

- (a) Complete the table below by either naming or describing the function of each structure. Structure A has been completed for you. (3 marks)
- **B** Transmits electrical impulses to the brain (1 mark)
- C Converts light energy to electrical impulses (1 mark)
- **D** Lens (1 mark)

AO1 = 3 marks

(b) Use the example in **Figure 2** to explain the difference between *sensation* and *perception*. (3 marks)

AO1

Sensation refers to the physical stimulation of the sensory receptors whereas perception is the process of interpreting and understanding sensory information.

AO₂

In the figure, the black shapes are not in the shape of letters. The sensory information itself has no meaning. In order to perceive the word 'shadow', the brain places an interpretation on what could cause this pattern of shapes. AO1 = 2 marks AO2 = 1 mark

To 3 marks as follows

3 marks	Clear explanation with relevant reference to the figure.
2-1 marks	Clear explanation without relevant reference to the figure or partially correct explanation.

(c) Distinguish between *positive reinforcement* and *negative reinforcement*.

(3 marks)

Both types of reinforcement involve increasing (strengthening) the likelihood of behaviour (AO2). In the case of positive reinforcement, it is by applying something pleasant whereas in the case of negative reinforcement, it is by the removal of something unpleasant (AO1).

AO1 = 2 marks AO2 = 1 mark

3 marks	Both terms are clearly expressed with the distinction evident as in the mark scheme.
2-1 marks	At the upper end there will be a complete explanation of one term or the sense of both will be present. At the lower end the sense of one of the terms will be present.

(d) Explain how Murphy's owner might have shaped his cat's behaviour.

(4 marks)

AO1

The behaviour would be built up gradually, step by step. The owner would provide reinforcement (a chocolate drop) every time the cat showed behaviour which was close to what he wanted. Operant conditioning is referred to.

AO₂

In the first instance, it might have been moving towards the stool when he snapped his finger. Then by rewarding successive approximations to the desired behaviour, the cat would eventually display the behaviour described in the article. AO1 = 2 marks AO2 = 2 marks

To 4 marks as follows

4-3 marks	Clear explanation of behaviour shaping, reflecting the amount of detail contained in the mark scheme.
2-1 marks	At the bottom end, a recognisable definition of behaviour shaping will be offered. At the top end there will be a limited attempt at an explanation.

Note: If the explanation offered is clearly not related to behaviour shaping (e.g. sticking food to the light switch!), no marks should be awarded.

(e) Explain **one** difference between classical conditioning and operant conditioning. (3 marks)

AO₂

Any appropriate difference should be credited. In the case of classical conditioning, it is because two stimuli have been presented together sufficiently often for an association to be made. In the case of operant conditioning, learning occurs because of the consequences of behaviour. Full credit can be earned by a clear explanation of any one difference.

(Other sources of differences relate to what behaviour can be conditioned, how certain the conditioned behaviour is likely to occur and whether new behaviours can be created).

AO1 = 1 mark AO2 = 2 marks

3 marks	One source of difference has been clearly explained to the level of detail contained in the mark scheme.
2-1 marks	At the upper end a difference has been briefly explained. At the lower end, a difference has been identified.

- (f) For the experiment described above, state:
 - (i) The independent variable;

(1 mark)

(ii) The dependent variable.

(1 mark)

- (i) The independent variable is the type of question asked. (1 mark)
- (ii) The dependent variable is the number of faces recognised. (1 mark)

AO1 = 2 marks

(g) Use your knowledge of psychology to explain the results of the experiment described. (4 marks)

This is based on a study by Bower & Karlin (although candidates are not expected to know this).

AO1

The results could be explained by the levels of processing approach. Group 1 was involved in shallow processing of the pictures by simply identifying the sex of each person in the pictures. Group 2 in deciding whether they were honest or not, had to process the pictures in greater depth. Therefore they were more likely to be remembered.

AO₂

The results indicated that Group 2 did recognise more faces. This supports the level of processing explanation. AO1 = 3 marks AO2 = 1 mark

To 4 marks as follows

4-3 marks	Clear psychological explanation of the results reflecting the detail of the mark scheme.
2-1 marks	Explanation which is brief but accurate at the top end or muddled at the bottom end with the psychological content discernible.

(h) (i) Identify **one** factor which might affect the reliability of eyewitness accounts of people or incidents. (1 mark)

The most likely factors candidates will identify include leading questions, emotion, context of questioning or physiological arousal. AO1 = 1 mark

(ii) Describe **one** study in which the factor you have identified above was investigated. Include in your answer the method used, the results obtained and the conclusion drawn.

(4 marks)

The most likely studies are Loftus & Palmer (leading questions) and Baddeley (context) but others are equally acceptable.

AO1 = 4 marks

To 4 marks as follows

4-3 marks	The study is clearly recognisable and the description contains all three elements required by the question. At the top end, description is detailed.
2-1 marks	The outline of a recognisable study is given but it does not contain all the elements required by the question or the description is muddled.

(iii) Discuss **one** practical implication of studies of eyewitness testimony. (3 marks)

In the case of context (for example), one implication might centre on how police interviews are managed. Taking people back to the scene in order to restore context could help to improve the accuracy of eyewitness accounts. AO2 = 3 marks

3 marks	The answer demonstrates a clear understanding of one implication.
2-1 marks	At the top end the answer demonstrates a limited understanding of one implication. At the lower end one implication is stated.

SECTION B - SOCIAL PSYCHOLOGY

Total for this question: 30 marks

(a) Describe the results of the experiment.

(3 marks)

A much larger percentage of Group 2 thought Chris was unsociable compared to Group 1. This was the most frequently chosen description for Group 2. Group 1 thought Chris to be more imaginative and more humorous compared to Group 2. Humorous was the least chosen description for Group 2.

AO1 = 3 marks

To 3 marks as follows

3 marks	Results are clearly described with three valid descriptions being mentioned in the answer.
2-1 marks	Results are partially described, e.g. not every description is included in the answer.

(b) (i) Identify the experimental design chosen for this experiment.

(1 mark)

Independent groups (measures) (1 mark)

AO1 = 1 mark

(ii) Explain **one** advantage of choosing the design you have identified in (i) above. (2 marks)

Any valid advantage will gain 1 mark if it is only stated. If an advantage has been explained, both marks can be awarded. For example, it controls for order effect (1), as each group participates in only one condition (1). Allow correct advantage of matched pairs or repeated measures if offered for (b) (i) incorrectly. AO2 = 2 marks

(c) Use your knowledge of psychology to discuss the conclusions that could be drawn from the experiment described above. (5 marks)

AO1

The results support the primacy effect as the participants seemed to be affected more by the first words they saw. Group 1 saw the positive descriptions first and a much larger percentage of them chose positive descriptions of Chris. Group 2 saw negative descriptions first and a much lower percentage of them chose positive descriptions of Chris.

AO2

As the question asks for discussion, evaluative commentary should also be offered. For example, the study is artificial and does not truly reflect everyday life. In real life, primacy effects are often prevented by other factors such as preconceived ideas or stereotypes.

AO1 = 2 marks AO2 = 3 marks

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5-4 marks	Results are fully discussed with relevant evaluative commentary and reflect the detail of the mark scheme.
3-1 marks	The results are partially discussed with either brief or no evaluative comment at the top end. At the lower end, discussion is either very limited or muddled.

(d) What do psychologists mean by the term *prejudice*?

(3 marks)

Prejudice can be defined as a rigid set of attitudes or beliefs which can be either positive or negative, towards a particular group of people. Reference to stereotyping. AO1 = 3 marks

To 3 marks as follows

3 marks	The answer will reflect the detail of the mark scheme and will be clearly expressed.
2-1 marks	A brief or muddled answer.

(e) Discuss Sherif's explanation of how prejudice between groups might occur. Refer to psychological evidence in your answer. (7 marks)

AO1

Sherif argued that intergroup conflict occurs when two groups are in competition for scarce resources. In one experiment he studied American boys attending a summer camp. In the early stages, the boys were divided into two groups. Conflict was introduced through a series of intergroup contests. Sherif found that hostility between the two groups quickly developed. Prejudice and hostility built up in a number of ways, from fighting to name-calling. Sherif had demonstrated that competition between groups could cause prejudice.

AO₂

As the question asks for discussion, evaluative commentary should also be offered. For example, Sherif's study has been criticised on the basis that the groups were artificially created and therefore didn't really reflect everyday life. On the other hand, it did take place away from the confines of a psychology laboratory and therefore was more ecologically valid than many social psychology experiments. Also, as all the participants were only 12 year-old white boys, it could be argued that it would be dangerous to generalise from these findings. AO1 = 4 marks AO2 = 3 marks

To 7 marks as follows

7-6 marks	Sherif's contributions are clearly recognisable in a good and balanced answer which includes description of research plus relevant critical commentary reflecting the detail contained in the mark scheme. Answers must contain both description and evaluation to enter this mark band.
5-3marks	Limited attempt at discussing Sherif's contributions. At the top end, there may be a combination of brief description of research plus an attempt at critical commentary or an excellent description of research without any evaluation. At the bottom end there will be brief description of research or evaluative commentary.
2-1 marks	A very brief or muddled account of Sherif's contributions.

(f) Explain what is meant by the term *deindividuation*. Refer to the article in your answer.

AO1

Deindividuation is the loss of self-awareness and sense of personal responsibility which may occur when we are part of a crowd.

AO₂

The article refers to people who have been swept along by the mood of the crowd, behaving in ways they probably wouldn't do on their own. AO1 = 2 marks AO2 = 1 mark

To 3 marks as follows

3 marks	A clear definition of deindividuation with reference to the article.
2-1 marks	A clear definition without reference to the article or the definition is muddled.

(g) Use your knowledge of psychology to explain **two** factors that affect deindividuation. (6 marks)

AO1

Two factors that affect deindividuation are level of anonymity and external cues to behaviour.

AO₂

There are various factors that increase anonymity, such as the size of the crowd and whether or not it was dark. One study has reported people in a large crowd trying to encourage someone to commit suicide. External cues such as uniforms can make people behave in ways in which they would not otherwise do. For example, the guards in Zimbardo's prison study all acted out the role attributed to their uniformed status.

N.B. Other relevant factors that may be offered can also receive full credit.

AO1 = 2 marks AO2 = 4 marks

The mark scheme for **3 marks** is as follows because **two** explanations are required. Each explanation should be treated separately and the marks then added together.

3 marks	The factor is clearly explained in psychological terms reflecting the detail of the mark scheme.
2-1 marks	The factor is briefly explained at the top end. At the bottom end, a factor is stated or the explanation is muddled.

SECTION C - DEVELOPMENTAL PSYCHOLOGY

Total for this question: 30 marks

(a) What is meant by the term *maternal deprivation*?

(2 marks)

Maternal deprivation is a condition of being separated from the mother in the early years of life (1 mark) after an attachment has been formed (1 mark). AO1 = 2 marks

(b) Describe and evaluate **one** study conducted by Bowlby in which maternal deprivation was investigated. Include in your answer the reason why the study was conducted, the method used, the results obtained, the conclusion drawn and evaluation of the study described.

(8 marks)

AO1

The reason for Bowlby's study was to look for a link between maternal deprivation and juvenile delinquency. His method involved interviewing two groups of 44 participants. One group comprised juvenile thieves and the other group were emotionally disturbed but had no known criminal records. His results showed that of the thieves, 17 out of the 44 had experienced maternal deprivation before the age of five. Of the other group, only two of the 44 reported maternal deprivation. This led Bowlby to conclude that there was a link between maternal deprivation and juvenile delinquency.

AO2

Evaluation points that could be made in the answer include the very small sample (only 44). Also less than half of the juvenile delinquents reported deprivation. It was a retrospective study which relied on the memories of the participants, which may not be a reliable method.

AO1 = 5 marks AO2 = 3 marks

8-6 marks	The study is clearly recognisable and the description contains all four elements required by the question. An attempt at evaluation is made which, at the top end could be one elaborated point or more than one evaluative comment but in less				
	detail.				
5-4 marks	The study is clearly recognisable and the description contains all four elements				
	required by the question but no evaluation is offered or the description of the study				
	lacks detail and an attempt at evaluation is made.				
3-1 marks	The outline of a recognisable study is given but it does not contain all the elements				
	required by the question. There may or may not be an evaluation attempt.				

(c) Discuss the contribution of Ainsworth to our understanding of attachment between children and their parents. (6 marks)

AO1

Ainsworth's research led her to believe that babies could form secure or insecure attachments with their mothers. She used the Strange Situation to identify differences in the quality of attachment bonds. She found from her sample of mothers and babies that 70% were securely attached and this was characterised by ignoring mother while she was there, distressed when she leaves, pleased to be reunited on her return and treating the stranger and mother differently. The remaining 30% were insecurely attached and classified as anxious-avoidant or anxious-resistant. Anxious-avoidant largely ignored mother, was not distressed by her leaving and treated the mother and stranger similarly. Anxious-resistant were generally unsettled, distressed for much of the time but rejected comfort from mother when it was given.

AO₂

As the question says 'discuss', evaluative commentary should be included in the answer to this question. For example, Ainsworth's research only focused on attachment to mother. The child may have a different type of attachment to other members of the family. Other research has shown that the same child may show different attachment behaviours on different occasions. Also, if the child's circumstances change, so might the attachment behaviour. AO1 = 4 marks AO2 = 2 marks

To 6 marks as follows

6-4 marks	Clear discussion of Ainsworth's contribution reflecting the detail contained in the mark scheme. Both description and critical commentary must be present at the upper end of this band of marks (for 5 or 6 marks).			
3-1 marks	Answer which is brief or muddled at the bottom end. At the upper end, there may be clear description only or brief description with an attempt at critical commentary.			

(d) (i) According to Piaget, what characteristic of cognitive development is Harry failing to show? (1 mark)

Conservation / reversibility

AO1 = 1 mark

(ii) According to Piaget, in which stage of cognitive development will Harry realise that the taller beaker contains the same amount of liquid as the shorter one. (1 mark)

Concrete operational / formal operations

AO1 = 1 mark

(iii) Discuss **one** criticism of Piaget's studies of cognitive development.

(3 marks)

There are various criticisms that could be discussed. For example, when a child is asked the same question twice, they may think they should give a different answer. In other research, when the question was asked only once after the liquid has been poured, many more children got the answer correct. AO2 = 3 marks

3 marks	The criticism is clearly discussed reflecting the detail of the mark scheme.			
2-1 marks	The criticism is briefly discussed at the top end. At the bottom end, a criticism is stated or the discussion is muddled.			

(e) Correctly fill in the boxes using the terms testosterone, oestrogen, XY and XX. (3 marks)

XX
XY
Oestrogen
Testosterone
(1 mark each – maximum 3 marks)

AO1 = 3 marks

(f) Describe Freud's explanation of how gender identity is formed in **either** boys **or** girls.

(4 marks)

Freud proposed that gender identification occurs in the phallic stage for both boys and girls. Credit should be given to reference to either the Oedipus or Electra complex. Sexual desire for the opposite sex parent will feature in good answers as well as anxiety (penis envy in girls), fear of punishment (in the form of castration for boys), and resolution of the conflict by identification with the same sex parent. AO1 = 4 marks

To 4 marks as follows

4-3 marks	Clear description of Freud's explanation with the majority of features described above for full marks.
2-1 marks	Answer which is muddled or very brief at the bottom end but describes a recognisable but brief explanation at the top end.

(g) Outline **one** criticism of the work of Freud. (2 marks)

There are many valid criticisms of the work of Freud. A criticism that is only stated would attract only 1 mark. Equally two different stated criticisms would receive a maximum of 1 mark (as the question asks for an outline of one criticism). For the second mark, elaboration should be present. For example, Freud's sample was not representative of people in general (1 mark) because he relied on case studies of females from similar backgrounds (1 mark). AO2 = 2 marks

SECTION D - PRO- AND ANTI-SOCIAL BEHAVIOUR

4 Total for this question: 30 marks

(a) (i) What is meant by the term categories of behaviour?

(1 mark)

Categories of behaviour are where behaviour is broken down into observable components that can be recorded. AO1 = 1 mark

(ii) Explain why it is necessary to devise categories of behaviour in observation studies. (2 marks)

It is necessary to devise categories in order to have operational definitions (1 mark) for objective measurement (1 mark). It allows for ease of recording (1 mark). Maximum 2 marks. $\mathbf{AO1} = 2 \text{ marks}$

(iii) Suggest **two** categories of behaviour that the psychologists might have used in this study. (2 marks)

Any appropriate categories, for example, any 2 from:

- Adult males helping drunk man
- Adult females helping drunk man
- Adult males helping blind man
- Adult females helping blind man

(There could also be 4 more categories of 'not' helping)

AO1 = 2 marks

(b) (i) The psychologists decided that it was important to establish inter-observer reliability in their investigation. Define the term *inter-observer reliability*. (2 marks)

Inter-observer reliability means that the measurement of behaviour is consistent (1 mark) between observers (1 mark). AO1 = 2 marks

(ii) Explain how the two psychologists could have established inter-observer reliability in their study. (2 marks)

To establish inter-observer reliability they should observe the same behaviour independently (1 mark) and compare results afterwards (1 mark) AO1 = 2 marks

(c) Identify and discuss **one** ethical issue that the psychologists should have considered before conducting their study. (4 marks)

There are several ethical issues that could be raised by this study. One mark will be awarded for any relevant issue identified. Discussion will attract the remainder of the marks.

AO1

For example, this type of study causes distress to onlookers. If they offer help, then their distress could be relieved through the debrief, which ethical guidelines say must take place.

AO₂

However there would probably also have been onlookers who did not offer help and who just walked away. They would probably not have had the opportunity for a debrief and they would have left the scene possibly in a state of distress.

Other ethical issues which could be discussed include deception and informed consent.

AO1 = 2 marks AO2 = 2 marks

To 4 marks as follows

	A relevant issue has been identified and discussed with clarity reflecting the detail of the mark scheme.				
2-1 marks	At the top end, an issue has been identified with very limited discussion. At the bottom end, an issue has been identified or discussion is very limited or muddled.				

(d) Critically analyse **one** factor that could affect pro-social behaviour. (4 marks)

AO1

The specification specifically identifies socialisation and social norms as factors. Socialisation is the process by which we learn what is expected within our society.

AO₂

Critical analysis could indicate that the process depends partly on the child's cognitive development as well as the environment. It is not simply a case of observing and imitating models' behaviour. However, parents do not always agree with each other and peer group pressure could also come into conflict.

AO1

Social norms are the unspoken rules and expectations about how we should behave. These norms exert pressure on us as to how we should behave.

AO2

Critical analysis could argue that sometimes these norms could be in direct conflict with each other depending on the situation we are in. Conforming to norms for pro-social behaviour will depend on our own level and strength of moral development and also our socialisation. It also depends on our judgements of other people and their motives. AO1 = 1 mark AO2 = 3 marks

4-3 marks	One factor has been critically analysed with clarity and reflects the detail of the mark scheme.
2-1 marks	At the top end critical analysis has been attempted but detail is lacking. At the lower end, a critical statement has been made or factors being explained, possibly with an example.

(e) Explain what is meant by the term *positive correlation*. Refer to the article in your answer.

A positive correlation is when an increase in one variable is accompanied by an increase in another variable. In the article this means that the more violence watched on television, the more aggressive will be children's behaviour. AO1 = 2 marks AO2 = 1 mark

To 3 marks as follows

3 marks	A clear definition of positive correlation with reference to the article.			
2-1 marks A clear definition without reference to the article or the definition is mude				

(f) From what the head teacher said, would it be right to conclude that watching violence on television **causes** children to behave aggressively? Explain your answer. (3 marks)

AO1

It would be wrong to conclude that watching violence causes aggression. The research identified shows a correlation between the variables. Correlations do not imply cause and effect.

AO₂

There could be another variable associated with an increase in both TV viewing and aggression. It would require an experiment to identify causes of behaviour. AO1 = 2 marks AO2 = 1 mark

To 3 marks as follows

3 marks	The answer is clearly expressed reflecting the detail of the mark scheme.			
2-1 marks	The answer shows some understanding of the cause and effect issue although the explanation is limited. One mark can be awarded for saying that it would be wrong to conclude cause, even if the explanation is incorrect.			

(g) (i) Outline **one** ethological explanation of aggression. (3 marks)

Through the study of animals, the ethological approach proposes that aggression happens through instincts. Therefore the behaviour is innate. The motive is to increase the animal's chances of survival and reproduction. As it is an instinct, aggression cannot be removed, therefore it has to be managed. $\mathbf{AO1} = 3 \text{ marks}$

3 marks	The answer is clearly expressed reflecting the detail of the mark scheme.				
2-1 marks	The answer shows some understanding of the ethological explanation of aggression although the explanation is limited.				

(ii) Identify **one** way in reducing aggression based upon the ethological approach and discuss its likely success. (4 marks)

AO1

According to the ethological approach, the way to manage innate aggression is to discharge it without serious harm to others. This can be done through channelled aggression in a ritualised setting, for example taking part in sport. This provides a safe outlet for aggression. Appeasement gestures.

AO2

However, research has shown that watching or playing aggressive sports can make us more aggressive and so the likely success of this approach is not convincing. AO1 = 2 marks AO2 = 2 marks

Note: answers based on appeasement are acceptable.

4-3 marks	One way of reducing aggression has been suggested and its likely success has been discussed with clarity reflecting the detail of the mark scheme.
2-1 marks	At the top end, a way of reducing aggression has been suggested but discussion is very limited. At the lower end, a suggestion has been made or discussion is muddled or an example is given.

Assessment grid – Tier H

Question	AO1	AO2	Research methods	Common marks
1	20	10	2	17
2	18	12	6	15
3	20	10	0	14
4	21	9	16	11
Total	79	41	24	57