



**General Certificate of Education**

**Psychology 5186**

*Specification B*

**Unit 1 (PSYB1) Introducing Psychology**

**Mark Scheme**

*2009 examination - January series*

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

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**SECTION A: KEY APPROACHES AND BIOPSYCHOLOGY**
**1****Total for this question: 20 marks**

- |  |
|--|
| (a) What do behaviourists mean by the term <i>operant conditioning</i> ? Give an example of how operant conditioning might be used to train an animal. (3 marks) |
|--|

**[AO1 = 1, AO2 = 2]****AO1** One mark for correct definition of the term.

Possible answer: Operant conditioning refers to behaviours learnt as a result of reinforcement/environmental consequences (AO1, 1)  
Credit other appropriate alternatives eg, negative reinforcement; punishment, etc.

**AO2** Up to two marks for an appropriate example of how operant conditioning is used in training an animal.

One mark for demonstration of the behaviour being conditioned.  
One mark for reinforcement of the behaviour.

- |  |
|--|
| (b) Identify and explain <b>one</b> methodological issue which might arise when using EEGs to investigate cortical specialisation. (3 marks) |
|--|

**[AO3 = 3]****AO3** One mark for identification of an issue.  
Up to two marks for explanation of the issue in relation to the method.

Likely answers: crude measure – the activity of neurons is measured and averaged; electrodes are not sensitive enough to detect precise neuronal functions; lack of reliability, etc.

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|--|
| (c) (i) Outline the role of the sympathetic nervous system <b>and</b> the parasympathetic nervous system in physiological arousal. (2 marks) |
|--|

**[AO1 = 2]****AO1** One mark each for appropriate description of the role.

Possible answer: The sympathetic nervous system prepares our body for action during the fight-or-flight response (AO1, 1). The parasympathetic nervous system restores the body to its normal state (AO1, 1).

- (c) (ii) Sophie is taking her driving test for the first time. She is very nervous. Her hands begin to sweat and she can feel her heart pounding. When the examiner asks Sophie to start the car, she feels sick. After the driving test, Sophie begins to feel her breathing slow down.

From the description above, identify **two** of Sophie's bodily responses, stating whether **each** response is a result of the action of the sympathetic nervous system or the parasympathetic nervous system. (2 marks)

**[AO2 = 2]**

**AO2** One mark (up to two) for any of the following:

- 'Her hands began to sweat...' – sympathetic nervous system.
- '...she can feel her heart pounding' – sympathetic nervous system.
- '...she feels sick.' – sympathetic nervous system.
- '...her breathing slows down' – parasympathetic nervous system.

- (d) Describe and evaluate the humanistic approach in psychology. Refer to **at least one other** approach in your answer. (10 marks)

**[AO1 = 5, AO2 = 5]**

**AO1** Up to five marks for description of the features of the humanistic approach. Features could include – how each person is unique – the subjective experiences, feelings and thoughts of a person should be of importance to psychologists. Conscious awareness. Focus on the importance of self/personal growth. Self-actualisation – every person has an innate tendency to reach his or her full potential. Concept of free will – able to choose and determine own actions. Unconditional positive regard – the unconditional love of the mother for her child is essential to the development of a well-adjusted adult. Client-centred therapy – client at centre of own therapy in solving their problems. The idiographic approach – emphasis on understanding the uniqueness of a person; holistic approach. Credit description of relevant evidence (one mark).

**AO2** Up to five marks for evaluation. For example, the humanistic approach is criticised for its rejection of the scientific approach and in particular, the use of experiments to understand and predict human behaviour. There is little objective evidence to support the assumptions made by humanistic psychologists. Candidates may evaluate the approach in relation to the behaviourist approach for example, which views humans as passively responding to stimuli in the environment. Humanistic psychologists state that humans are active agents – able to change and determine their own development. Candidates may contrast the concept of free will with the deterministic features of other approaches eg, the biological approach. The value of a person-centred approach may be compared to the psychodynamic approach. Credit use of relevant evidence.

**Maximum 6 marks if no reference to other approach**

## Mark Bands

### 8 – 10 marks **Good answers**

There is accurate, well-organised and detailed description of the humanistic approach in psychology. The evaluation is clear, coherent and detailed. There is appropriate reference to one other approach. There is focus with little or no misunderstanding.

There is structure with effective use of paragraphs and sentences. There are very few errors of spelling and punctuation.

### 4 – 7 marks **Average answers**

There is a reasonably accurate and organised description of some features of the humanistic approach though it may lack detail. Evaluation may lack clarity, coherence or detail. At the top of the band, there is reference to one other approach in psychology. There may be some inaccuracy or irrelevance.

There is some structure with appropriate use of paragraphs and sentences. There are some errors of spelling and punctuation.

### 1 – 3 marks **Poor answers**

There is basic or limited knowledge/evaluation of the humanistic approach. The response may be inaccurate and/or poorly focused.

There is little evidence of structure in terms of correct use of sentences and paragraphs. There are frequent errors of spelling and punctuation.

### 0 marks **No relevant content**

Total A01 marks for Question 1 = 8

Total A02 marks for Question 1 = 9

Total A03 marks for Question 1 = 3

**Total marks for Question 1 = 20 marks**

**SECTION B: GENDER DEVELOPMENT****2****Total for this question: 20 marks**

(a) (i) An atypical sex chromosome pattern is XXY. Name the syndrome. <span style="float: right;"><i>(1 mark)</i></span>
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**[AO1 = 1]****AO1** One mark for correct name of the syndrome.

- Klinefelter's syndrome

(ii) Briefly explain how studying people with atypical sex chromosome patterns can contribute to our understanding of gender. <span style="float: right;"><i>(2 marks)</i></span>
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**[AO3 = 2]****AO3** Up to two marks for explanation of the contribution to understanding of gender.

Possible answer: By comparing people with atypical sex chromosome patterns to people with typical sex chromosome patterns (AO3, 1), psychologists are able to infer what aspects of gender behaviour are heritable/biological, or similar (AO3, 1).

(b) Kohlberg proposed three stages of gender development.
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Write **one** question that a psychologist might use to assess a child's understanding of the following:

- |                         |                  |
|-------------------------|------------------|
| (i) gender identity;    | <i>(3 marks)</i> |
| (ii) gender stability;  |                  |
| (iii) gender constancy. |                  |

**[AO3 = 3]****AO3** One mark each for an appropriate question.

Possible answer:

- (i) Gender identity – 'Are you a boy or a girl?'
- (ii) Gender stability – 'When you grow up, will you be a mummy or a daddy?'
- (iii) Gender constancy – 'If you put on a pair of trousers, Jessica, will you be a boy or a girl?'

(c) Lulu is six years old. One Saturday she goes to play with her friend Emma, at Emma's house. Lulu notices how Emma helps her mother with the cooking. When Emma helps with the cooking, her mother praises her. When Lulu returns home, she helps her mother with the cooking.

Referring to social learning theory, explain why Lulu helps her mother with the cooking.

(4 marks)

**[AO1 = 2, AO2 = 2]**

**AO1** Candidates may choose to answer with general reference to social learning theory eg observation; modelling; imitation; identification etc, or with specific reference to vicarious reinforcement.

**AO2** Up to two marks for reference to the stimulus material which illustrates social learning theory. For example:

- Observation – Lulu notices how Emma helps her mother with the cooking and is praised for it.
- Modelling – Lulu sees Emma's mother/Emma as a role model
- Vicarious reinforcement – Lulu learns that if she helps her mother with the cooking, then she too will be rewarded.

(d) Discuss a psychodynamic explanation of gender development.

(10 marks)

**[AO1 = 5, AO2 = 5]**

**AO1** Up to five marks for description of a psychodynamic explanation of gender development. Candidates are likely to describe Freud's theory of gender development. Candidates may focus on the role of the parents in the acquisition of gender; identification during the phallic stage of psychosexual development; Oedipus and Electra complexes. Credit appropriate features of other psychodynamic explanations eg, Chodorow; Horney; Erikson.  
Credit description of relevant evidence/studies eg Goldberg and Lewis (1969); Little Hans, etc (one mark).

**AO2** Up to five marks for discussion of a psychodynamic explanation of gender development. Theorists have questioned Freud's theory of the Oedipus complex eg Malinowski (1929) – in a study of Trobriand islanders, no evidence was found that young boys had experienced the Oedipus complex. Candidates may refer to the issue of single-parent families i.e. how children are still able to acquire their gender identity in the absence of the same-sex parent. Candidates may receive credit for reference to alternative explanations of gender development which can be used to evaluate Freud eg, Chodorow, who stated that the early mother-child relationship forms the basis of gender identity. Chodorow stated that gender identity begins at birth unlike Freud, who stated that it occurs during the phallic stage (4 – 5 years). Candidates may contrast the timing of gender identity during the phallic stage with the cognitive explanation which views this process as developing over a number of years in childhood. The psychodynamic explanation emphasises the unconscious in gender acquisition which is in contrast to social learning theory. Credit use of relevant evidence.

**Mark bands**

**8 – 10 marks Good answers**

There is accurate, well-organised and detailed description of a psychodynamic explanation of gender development. The discussion is clear, coherent and detailed. There is focus with little or no misunderstanding.

There is structure with effective use of paragraphs and sentences. There are very few errors of spelling and punctuation.

**4 – 7 marks Average answers**

There is a reasonably accurate and organised description of some features of a psychodynamic explanation though it may lack detail. Discussion may lack clarity, coherence or detail. There may be some inaccuracy or irrelevance.

There is some structure with appropriate use of paragraphs and sentences. There are some errors of spelling and punctuation.

**1 – 3 marks Poor answers**

There is basic or limited knowledge/discussion of a psychodynamic explanation. The response may be inaccurate and/or poorly focused.

There is little evidence of structure in terms of correct use of sentences and paragraphs. There are frequent errors of spelling and punctuation.

**0 marks No relevant content**

Total AO1 marks for Question 2: 8

Total AO2 marks for Question 2: 7

Total AO3 marks for Question 2: 5

**Total marks for Question 2: 20**



**SECTION C: RESEARCH METHODS**

**3**

**Total for this question: 20 marks**

(a) What do the mean scores suggest about the effects of the computer games in this study? *(2 marks)*

**[AO3 = 2]**

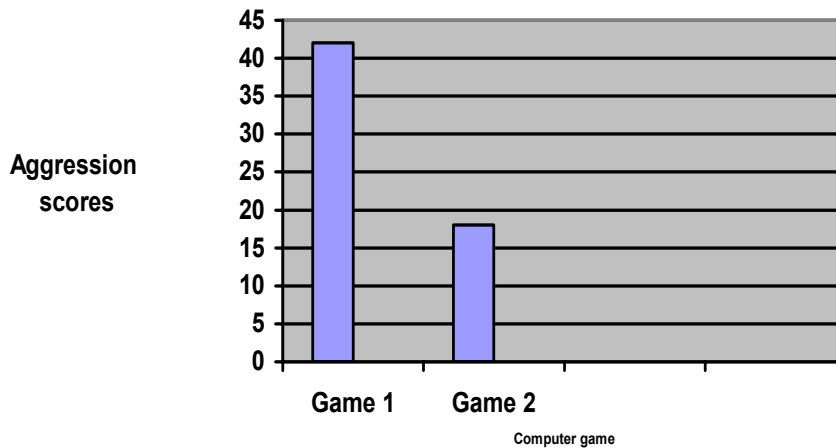
**AO3** Up to two marks for description of results.

Possible answer: Participants who played the aggressive computer game (Game 1) were more aggressive compared to participants who played the neutral computer game (Game 2) (AO3, 1). The mean score is higher for participants who played Game 1 compared to for participants who played Game 2 (AO3, 1).

(b) Draw a bar chart to display the data presented in **Table 1**. Correctly label your bar chart. *(3 marks)*

**[AO3 = 3]**

**Mean aggression scores for participants who played Game 1 (aggressive) and participants who played Game 2 (neutral)**



- AO3** To gain the maximum three marks, candidates must provide the following:
- An appropriate title, including reference to units and the named conditions
  - Accuracy of bars on the bar chart
  - Appropriate axes and labelled

Note: Credit appropriate alternative labelling of axes.

(c) (i) Identify the independent variable (IV) in this study.	(1 mark)
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**[AO3 = 1]**

**AO3** One mark for correct identification of the independent variable – the aggressive or neutral computer games.

(ii) Identify the dependent variable (DV) in this study.	(1 mark)
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**[AO3 = 1]**

**AO3** One mark for the correct identification of the dependent variable – the aggression score/level of aggression.

(d) State an appropriate hypothesis for this study.	(2 marks)
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**[AO3 = 2]**

**AO3** One mark if one variable present or response is partially correct.  
Two marks for both variables identified, but need not be fully operationalised.

One-tailed: Participants who play the aggressive computer game will score higher on a test of aggression (AO3, 1) compared to participants who play the neutral computer game (AO3, 1).

Two-tailed: There will be a difference between the scores on a test of aggression (AO3, 1) for participants who play an aggressive computer game and participants who play a neutral computer game (AO3, 1).

Null: There will be no difference between the scores on a test of aggression (AO3, 1) for participants who play an aggressive computer game and participants who play a neutral computer game (AO3, 1).

(e) The psychologist used random sampling to select the participants for this study.
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(i) What is meant by <i>random sampling</i> ?	(1 mark)
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**[AO3 = 1]**

**AO3** One mark for correct definition of the method.

Possible answer: Random sampling is when every member of the target population has an equal chance of being selected.

- |      |  |           |
|------|--|-----------|
| (ii) | Explain why random sampling might be a better method to use than opportunity sampling. | (2 marks) |
|------|--|-----------|

**[AO3 = 2]**

**AO3** One mark each for two different reasons.  
Alternatively, up to two marks may be credited for one reason elaborated.

Likely answers: less chance of bias; more likely to be representative; ought to be generalisable, etc.

- |     |     |  |          |
|-----|-----|--|----------|
| (f) | (i) | Identify the type of experimental design used in this study. | (1 mark) |
|-----|-----|--|----------|

**[AO3 = 1]**

**AO3** One mark for correct identification of type of experimental design.

Likely answers: independent groups/measures/between participants/unrelated.  
Any other appropriate term may be credited.

- |      |  |          |
|------|--|----------|
| (ii) | Give <b>one</b> advantage of the experimental design you have identified in your answer to (f)(i). | (1 mark) |
|------|--|----------|

**[AO3 = 1]**

**AO3** One mark for identification of an appropriate advantage.  
Likely answers: no order effects; same task can be used in both conditions, etc.

- |     |     |  |          |
|-----|-----|--|----------|
| (g) | (i) | What is meant by an <i>extraneous variable</i> ? | (1 mark) |
|-----|-----|--|----------|

**[AO3 = 1]**

**AO3** One mark for correct definition of the term.

Possible answer: An extraneous variable is a variable that is not the independent variable but which might have an effect on the dependent variable (AO3, 1).

Credit appropriate alternative answer.

- |      |   |           |
|------|---|-----------|
| (ii) | Explain how <b>one</b> extraneous variable might have confounded the results in this study. | (3 marks) |
|------|---|-----------|

**[AO3 = 3]**

**AO3** One mark for identification of an extraneous variable.  
Up to two marks for explanation of the effect this might have had on the results i.e. effect on aggression score.

Likely answers: Environmental variables – eg heat of the room; Procedural variables – eg participant allocation to groups; Participant variables – eg level of aggression already present, mood, sex, etc.

(h) Before the study, the psychologist assessed the computer games as either aggressive or neutral.

Outline how the psychologist might have carried out this assessment. *(2 marks)*

**[AO3 = 2]**

**AO3** Up to two marks for a plausible outline in relation to the assessment of the computer games.

Likely answers: rating scale; observation; categories; content analysis; two independent psychologists as raters, etc.

Total AO1 marks for Question 3: 0

Total AO2 marks for Question 3: 0

Total AO3 marks for Question 3: 20

**Total marks for Question 3: 20**

**ASSESSMENT OBJECTIVE GRID**  
**PSYB1**  
**JANUARY 2009**

<b>Question</b>	<b>Weighting for knowledge and understanding (AO1)</b>	<b>Weighting for analysis and application (AO2)</b>	<b>Weighting for AO3</b>	<b>Total marks</b>
<b>1</b> (a) (b) (c) (i) (c) (ii) (d)	1  2 5	2  2 5	3	20
<b>2</b> (a) (i) (a) (ii) (b) (c) (d)	1  2 5	2  2 5	2 3	20
<b>3</b> (a) (b) (c) (i) (c) (ii) (d) (e) (i) (e) (ii) (f) (i) (f) (ii) (g) (i) (g) (ii) (h)			2 3 1 1 2 1 2 1 1 1 3 2	20
<b>Total</b>				60