



**General Certificate of Education**

**Psychology 1186**

*Specification B*

**Unit 1 (PSYB1) Introducing Psychology**

**Mark Scheme**

*2010 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**

**Question 1a**

**[AO1 = 1, AO2 = 1]**

**AO1** One mark for correct definition of the term eg a child is only loved and accepted if their behaviour is deemed to be acceptable.

**AO2** One mark for an appropriate suggestion in relation to the term i.e. what the parent does to show their appreciation **or** the expected behaviour the child displays.

Do not credit repetition of the definition..

Possible answer: a parent may only give their child a cuddle if they behave themselves (AO2, 1).

**Question 1bi**

**[AO1 = 2]**

**AO1** Up to two marks for each relevant point.

Likely answers: gradual change in inherited traits of a species over many generations; adaptation to the environment; natural selection; survival of the fittest, etc.

Credit any relevant example as an expansion point.

Credit appropriate alternative answers.

**Question 1bii**

**[AO2 = 2]**

**AO2** Up to two marks for an explanation of how an appropriate behaviour may have resulted from the process of evolution.

The response may focus on the advantage the behaviour has given e.g. survival, mating, continuation of the genes.

Likely behaviours: rooting reflex; sexual selection/mate preferences; parental investment; bonding/attachment behaviours; aggression, animal displays of behaviour; territoriality etc.

**Question 1ci**

**[AO3 = 2]**

**AO3** Up to two marks for a brief explanation of the method.

Possible answer: Post-mortem examinations allow for identification of abnormality in areas of the brain (AO3, 1). Any damage found can then be related to symptoms/behaviours shown by the person when they were alive (AO3, 1).

Credit appropriate alternative answers e.g. Broca.

**Question 1cii**

**[AO3 = 2]**

- AO3** One mark for naming an appropriate method.  
One further mark for a brief explanation of what the method entails.

Likely answers:

Neurosurgery – operating on/accidentally destroying structures within the brain- see how behaviour is affected.

EEGs – recordings of the electrical activity of the brain are made from electrodes placed on an individual's scalp to see which areas are active when cognitive tasks are performed.

Electrical stimulation – measures cortical specialisation either by stimulation of single neurons or groups of neurons correlating with behaviour/effect/patient's reported sensation.

Scanning techniques eg *PET scans* – injection of radioactive glucose into the bloodstream of an individual. The area(s) of the brain that use the radioactive glucose are then detected and measured.

*fMRI scans* – a type of specialised MRI scan which provides an image of an individual's brain activity, based on blood flow, every few seconds. The area of the brain most active can be observed.

Credit appropriate alternative answers.

**Question 1d**

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

- AO1** Up to five marks for a description of the features of the behaviourist approach in psychology. Features may include – the focus on observable behaviour. All behaviour is learned and can be best understood in terms of associations between stimulus and response. Behaviour is determined by our interactions and experiences in the environment. Principles of operant conditioning – the use of consequences/reinforcement to shape behaviour. Principles of classical conditioning – temporal associations between neutral stimulus and unconditioned stimulus (credit diagrammatic representation). Psychology should be both scientific and objective. The nomothetic approach to psychology. How it is possible to apply the findings from animal research in order to explain human behaviour.  
Credit description of relevant evidence (one mark).

- AO2** Up to five marks for evaluation. In terms of the strengths, the approach has been praised for its use of highly controlled and scientific methods of research. In terms of the limitations, candidates may state how the behaviourist approach oversimplifies the stimulus-response links used to explain all forms of behaviour. The approach neglects the role of mental processes in determining behaviour, unlike the cognitive approach in psychology. The behaviourist approach suggests that all behaviour is determined by our environment thereby stating that there is no free-will – a point criticised by humanistic psychologists. The approach has been viewed as crude in extrapolating the findings from animal research to explain human behaviour. In terms of application of the behaviourist approach to psychology, candidates may portray the many practical

applications of the behaviourist approach – token economy programmes for criminals; behaviour modification therapy for autism, etc.  
Credit use of relevant evidence and diagrams.

**Mark bands**

**8 – 10 marks Good answers**

There is accurate, well-organised and detailed description of the behaviourist approach in psychology. The evaluation 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 the behaviourist approach though it may lack detail. Evaluation 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/evaluation of the behaviourist 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**

**SECTION B: GENDER DEVELOPMENT**

**Question 2a**

**[AO1 = 1, AO2 = 1]**

**AO1** One mark for a correct definition of the term.

Possible answer: Androgyny refers to an individual who possesses a balance of both masculine and feminine traits (AO1, 1).

**AO2** One mark for an appropriate suggestion of how a person might show androgynous behaviour eg a woman might be caring as a mother, yet forceful within her work role (AO2, 1).

Alternatively, candidates may receive credit for answers that specify one gender and link it to its opposite gender trait eg a male might be caring as a nurse.

**Question 2bi**

**[AO1 = 1]**

**AO1** One mark for a correct identification of an atypical sex chromosome syndrome.

Likely answers: Klinefelter's; Turner's; Supermale, etc.

**Question 2bii**

**[AO1 = 1]**

**AO1** One mark for an appropriate feature which may be either physical or psychological.

**Question 2biii**

**[AO2 = 2]**

**AO2** Up to two marks for an explanation.

Possible answer: To find out whether or not gender differences are biological / chromosomal (AO2, 1) by comparing individuals with typical sex chromosome patterns to individuals with atypical sex chromosome patterns (AO2,1).

**Question 2ci**

**[AO3 = 2]**

**AO3** To receive any credit this must be a recognisable study of gender (either by name or description).  
Award one mark for each relevant detail of the method e.g. named method (experiment, observation, etc); sample detail; conditions; variables; procedural details e.g. timing.

Do not credit aim, results or conclusion.

**Question 2cii**

**[AO3 = 2]**

**AO3** One mark for identification of an appropriate strength or limitation.  
One further mark for an expansion of the strength or limitation possibly in relation to the study.

Note: the strength or limitation can be methodological (in generic relation to the method), or non-methodological (particular to the study itself).

**Question 2d**

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

**AO1** Up to five marks for a description of the features of a cognitive explanation of gender development. Candidates are likely to refer to Kohlberg's three stages of cognitive development – Gender identity (2-3 years) a child can label his/her own sex and can label other people as boys or girls. Gender Stability (3-4 years) – a child understands that they will remain a boy or girl forever that is, they understand the concept of time. Gender Constancy (4 ½ - 7 years) a child understands that he or she does not change sex by changing appearance or being in different situations.  
Alternatively, candidates may refer to gender schema theory – the knowledge held about appropriate behaviours, characteristics, hobbies, roles etc for boys and girls. This knowledge is actively acquired by the child. Martin and Halverson (1981) state that around 2 years, when children can label their own sex, they actively seek their own environment for information to widen/reinforce their understanding of what it is to be male or female. Gender schemas are, according to Martin and Halverson (1981), built up in three stages:  
Stage 1 – a child learns what things are associated with each sex eg boys play with toy trains.  
Stage 2 – a child makes links between the different components of the schema for their own sex eg a boy who plays with toy trains must also wear trousers and have short hair.  
Stage 3 – a child can use linked components of gender schema for both sexes.  
Credit description of relevant evidence (one mark).  
Up to two marks for credit of description of other explanations. This may be another cognitive explanation.

**AO2** Up to five marks for a discussion of the cognitive explanation of gender development. Candidates may choose to provide evaluations of Kohlberg's theory eg the theory is descriptive rather than explanatory. Kohlberg underestimated the age with which children can identify their own sex – there is evidence to suggest gender identity occurs earlier than Kohlberg suggested. Candidates are required to discuss the cognitive explanation of gender development in relation to one other explanation. For example, the biological explanation states that gender is determined by genes, hormones, etc – factors outside of the child's control. Social learning theorists would argue that the cognitive explanation does not pay much attention to the role of social interactions on the development of gender – assumes the process is passive. Psychoanalytic psychologists would argue that the cognitive explanation does not really consider the importance of the unconscious in the development of gender. Credit use of relevant evidence.

Maximum 6 marks if no reference to another explanation.

### Mark bands

#### **8 - 10 marks Good answers**

There is accurate, well-organised and detailed description of a cognitive explanation of gender development. The discussion is clear, coherent and detailed. There is appropriate reference to one other explanation of gender development. 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 cognitive explanation though it may lack detail. Discussion may lack clarity, coherence or detail. At the top of the band, there is reference to one other explanation of gender development. 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 cognitive 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**



**SECTION C: RESEARCH METHODS**

**Question 3a**

**[AO3 = 2]**

**AO3** One mark for what the mean scores show.  
One mark for an explanation.

Possible answer: Participants who were asked to count backwards, out loud, from 300 performed less well on a test of Spanish compared to participants who sat in silence (AO3, 1). The mean is lower (9) for participants who were asked to count compared to (17) for participants who sat in silence (AO3, 1).

**Question 3bi**

**[AO3 = 1]**

**AO3** One mark for correct identification of the term e.g. a measure of the variation in a set of scores (AO3, 1), or similar response.

**Question 3bii**

**[AO3 = 2]**

**AO3** One mark for an appropriate suggestion about the performance.

Possible answer: The standard deviation of Group A indicates the scores were more consistent (2.8) than those in Group B (5.3) (AO3, 1).

One mark for an explanation

The response may focus on the suggestion that there was a wider variation in the performance of participants in Group B (AO3, 1) or because the standard deviation for Group A is lower than that for Group B (AO3, 1).

**Question 3c**

**[AO3 = 2]**

**AO3** One mark if one variable is fully operationalised, or both variables are present but are not fully operationalised.  
Two marks for both variables identified and fully operationalised.

Do not credit repetition of the first sentence of the stem.

Directional: Participants who learn a list of Spanish words followed by a counting task will recall fewer words (AO3, 1) than participants who learn a list of Spanish words followed by a period of silence (AO3, 1).

Non directional: There will be a difference in the number of words recalled on a Spanish test for participants who learn a list of Spanish words followed by a counting task (AO3, 1) and participants who learn a list of Spanish followed by a period of silence (AO3, 1).

**Question 3d**

**[AO3 = 3]**

**AO3** One mark for correct name of the experimental design.

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

One mark each for appropriate identification of an advantage.

Likely answers: no order effects; same task can be used in both conditions; participants are unable to guess the aims of the study, etc.

Note: if candidates incorrectly identify the type of experimental design as repeated measures, but give two correct advantages of a repeated measures design, then a maximum of two marks can be awarded.

**Question 3ei**

**[AO3 = 1]**

**AO3** One mark for identification of the sampling method.

Opportunity sampling.

**Question 3eii**

**[AO3 = 2]**

**AO3** One mark each for identification of an appropriate disadvantage.

Likely answers: unrepresentative sample; difficult to generalise from; bias on the part of the researcher in selecting sample; the sample may all be very similar eg a group of friends, etc.

Note: if candidates incorrectly identify the sampling method as say, stratified, but give two correct disadvantages of a stratified sample, then a maximum of two marks can be awarded for (e)(ii).

**Question 3f**

**[AO3 = 3]**

**AO3** One mark for identification of an appropriate extraneous variable.  
One mark for explaining that this would affect the recall of words.  
One mark for explaining how it would affect some participants and not others.

Likely answers:

Environmental variables: eg conditions of the room.

Participant variables: eg ability, sex, mood, previous knowledge of Spanish.

Procedural variables: eg allocation to groups.

Accept plausible variables not explicit in the stem.

**Question 3g**

**[AO3 = 4]**

**AO3** Up to four marks may be credited for candidates who write a short debrief that may include any of the following:

- The purpose of the experiment including reference to the other condition
- Background information in relation to the experiment
- Whether or not the participants have any questions
- Thanking the participant for taking part in the experiment
- Ethical issues eg right to withdraw

This list is not exhaustive and should not be treated as such. Candidates may receive credit for any inclusion not mentioned above which has relevance to the debrief / study.

**Note:**

Maximum 2 marks for candidates who only provide a list of things to include in a debrief.

Maximum 3 marks if no reference to an explanation of the purpose of the study.

Maximum 3 marks if no reference to ethical issues.