

GCE 2004
June Series



Mark Scheme

Psychology B *(Subject Code PYB1)*

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.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of candidates' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

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Dr Michael Cresswell Director General

PYB1

Quality of Written Communication

Where candidates are required to produce extended written material in English, the scheme of assessment must make explicit reference to the assessment of the quality of written communication. Candidates must be required to:

- select and use a form and style of writing appropriate to purpose and complex subject matter;
- organise relevant information clearly and coherently, using specialist vocabulary when appropriate;
- and
- ensure text is legible, and spelling, grammar and punctuation are accurate, so that meaning is clear.

The assessment criteria for quality of written communication apply only to questions with 10 marks, ie part (d) in AS unit test questions. The following criteria should be applied in conjunction with the mark scheme.

The awards of marks within a particular mark band can be achieved only if the criteria for the mark scheme and quality of written communication bands have been met.

The quality of written communication bands must be regarded as part of the appropriate mark scheme band even though they are listed separately in the mark scheme. If a candidate satisfies only part of the criteria, for either the mark scheme or the quality of written communication, then s/he cannot be awarded marks in that band. The next lower band must then be considered.

General Approach

Apply the principles below *only* to questions which require a banded mark scheme according to 'Guidelines for Mark Schemes'. This means questions worth ten marks or more.

Band 1	Good quality of written communication	The candidate will express complex psychological ideas clearly and fluently, with well-linked sentences and paragraphs using appropriate psychological terminology. Presentation of psychological concepts and arguments will be relevant and well structured. There will be few, if any, errors of grammar, punctuation and spelling.
Band 2	Average quality of written communication	The candidate will express complex psychological ideas clearly if not always fluently. Some limited but not consistent use of psychological terminology. Sentences and paragraphs reasonably well connected. Presentation of psychological concepts and arguments may sometimes be less relevant and poorly structured. Some errors of grammar, punctuation and spelling.

Band 3	Poor quality of written communication	The candidate will express simple psychological ideas clearly but be imprecise with more complex ideas. Sentences and paragraphs may not be connected and may be disjointed. Use of mainly non-specialist terms with only occasional psychological terminology. Presentation of psychological concepts and arguments may be of doubtful relevance or obscure. Errors of grammar, punctuation and spelling will be present and obtrusive.
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SECTION A: APPROACHES**1****Total for this question: 20 marks**

(a) Outline **one** criticism of the behaviourist approach.

(2 marks)

[2 marks: AO1 = 2, AO2 = 0]

AO1 **One mark for basic outline of the criticism identified.
Two marks for full outline of the criticism identified.**

Example: Ethologists disagreed with the use of animals to explain human behaviour (AO1, 1). There is a biologically qualitative difference between humans and other animals (AO1, 1).

(b) Explain **one** way in which Wundt influenced the development of psychology.

(3 marks)

[3 marks: AO1 = 2, AO2 = 1]

AO1 **One mark for identification of a relevant influence but brief or slightly muddled account. Two marks for identification and elaboration of the influence.**

AO2 **One mark for explaining how this influenced the development of psychology.**

Example: Wundt attempted to analyse the workings of the mind in a more structured way (AO1, 1) through measurement and control (AO1, 1). Wundt therefore influenced the development of psychology as a scientific discipline in its own right (AO2, 1).

Likely answers: structuralism/introspection/first psychological laboratory.

(c) John is playing tennis. He perceives the ball coming towards his left-hand side. He decides to respond by playing a backhand shot. John returns the ball and wins the point.

Outline the information-processing approach and illustrate it with reference to aspects of John's behaviour. *(5 marks)*

[5 marks: AO1 = 2, AO2 = 3]

AO1 Up to two marks for reference to features of the information-processing approach, eg inputting of data from the environment, mental processing of information – sensory input, decision making, output processes, sequential processes, limited capacity. Credit may be given for a diagrammatic representation of the approach, although this is not required by the question.

AO2 Up to three marks for reference to the stimulus material which illustrates the approach. Sensory input processes – John perceives the ball coming towards his left-hand side. Decision-making – he decides to respond by playing a backhand shot. Output processes – John returns the ball and wins the point.

(d) Describe and discuss at least two features of the psychodynamic approach. *(10 marks)*

[10 marks: AO1 = 5, AO2 = 5]

AO1 Up to 5 marks for description in detail of at least two features of the psychodynamic approach. Features could include – unconscious motivation, tripartite division of personality – id, ego and superego, stages of development, therapeutic approaches, defence mechanisms, emotional drives of sex and aggression.

AO2 Up to 5 marks for discussion, eg that the psychoanalytic approach places great emphasis on the unconscious mind in directing our behaviour but it cannot be measured in any precise way. Many ideas and assumptions are regarded as unscientific/lacking supporting evidence. Candidates may refer to the benefits/limitations of a person-centred approach. Candidates may contrast it with the free will approach of the humanists which the psychodynamic approach does not recognise.

Maximum of 6 marks if only one feature described.

Mark Bands**8 – 10 marks Good answers**

The candidate will have accurately described at least two features of the psychodynamic approach. The candidate will have discussed the approach and may have appropriately referred to another approach with accuracy. The response is focused on the question.

4 – 7 marks Average answers

For 7 marks, the candidate will have described at least two features of the psychodynamic approach though lacking in detail. At the top of the band, limited discussion will be evident, and there may be brief reference to another approach. For 6 marks, there must be some discussion. There may be slight inaccuracy and/or irrelevance.

For 4/5 marks, the candidate may have described only one feature of the psychodynamic approach. The response will be largely descriptive. Discussion may be little more than a comment. At the bottom of the band, the answer will be superficial.

1 – 3 marks Poor answers

The candidate may have made appropriate reference to the psychodynamic approach but presented a response with no discussion, or the response may be inaccurate or confused.

Total AO1 marks for Question 1: 11

Total AO2 marks for Question 1: 9

Total marks for Question 1: 20 marks

2

Total for this question: 20 marks

(a) Below are three definitions:

A a person's characteristics that are determined solely by the environment;

B a person's genetic make-up;

C a person's characteristics that are determined by genetics and the environment.

In your answer book, write down which of the above is a definition of

(i) a genotype;

(ii) a phenotype.

(2 marks)

[2 marks : AO1 = 0, AO2 = 2]

AO2 (i) a person's genetic make-up.

(ii) a person's characteristics that are determined by genetics and the environment.

(b) Outline **one** limitation of the biological approach in psychology.

(3 marks)

[3 marks: AO1 = 3, AO2 = 0]

AO1 One mark for a relevant limitation which may be brief or muddled. Two marks for a relevant limitation which may include slight inaccuracy. Three marks for a limitation which is appropriate and accurately outlined.

Example: Reductionism (AO1, 1) thoughts and behaviours are a result of the actions of neurones or biochemicals (AO1, 1). The approach ignores other levels of explanation such as interaction with environmental factors (AO1, 1).

(c) **Evolutionary theorists claim the physical and behavioural characteristics of a species are likely to be the result of natural selection.**

Using an example, explain what is meant by the term "natural selection."

(5 marks)

[5 marks: AO1 = 3, AO2 = 2]

AO1 Up to 3 marks for a description of natural selection, eg adaptation to the environment (AO1, 1). Those traits that contribute to a species' survival are likely to be passed on to the next generation (AO1,1). Characteristics which do not contribute to survival are less likely to be passed on (AO1, 1).

AO2 Two marks for an appropriate example, eg the peppered moth – was light-coloured until a mutant darker variety appeared as a result of industrialisation. The darker moths had an advantage in terms of camouflage. Darwin's observations of finches on the Galapagos islands – on one island there were finches with thick beaks, whereas on another their beaks were elongated – due to dietary differences. Physical differences of the birds evolved as a result of adaptation to the environment.

(d) Describe and discuss the genetic basis of **either** intelligence **or** schizophrenia. Refer to empirical evidence in your answer. (10 marks)

[10 marks : AO1 = 5, AO2 = 5]

AO1 Up to 5 marks for description of either the genetic basis of intelligence or schizophrenia. Candidates who select intelligence may refer to twin studies, eg monozygotic twins have more similar IQs than dizygotic twins. Bouchard and McGue (1981) – MZ correlation of .85 and DZ correlation of .58. Bouchard et al (1990) – Minnesota study – 70% of IQ due to genetic variation. Candidates who select schizophrenia may refer to twin studies, eg Gottesman and Shields (1972) – concordance rates for schizophrenia in non-identical twins is 9% and 42% in identical twins. Other evidence suggests a difference in chromosomes. Sherrington et al (1988) – found evidence for a cluster of genes on chromosome 5 which might make an individual more susceptible. Adoption studies provide further evidence Heston (1966) found that adopted children whose natural mothers were schizophrenic were five times more likely to be diagnosed schizophrenic than those whose mothers had not been diagnosed.

AO2 Up to 5 marks for discussion, eg in relation to intelligence, adoption studies have shown a low genetic link. Scarr and Weinberg (1977) found that on average adopted children have high IQs that are 10 to 20 points higher than those of their natural parents. Other environmental factors such as family influence may provide further support. Candidates who selected schizophrenia, may discuss evidence relating to psychological causes, eg schizophrenogenic families – Fromm-Reichman (1948) these families have high emotional tension where mothers are cold and promote feelings of guilt and fathers ineffectual. Discussion may refer to the Diathesis–stress model which describes an interaction between biological and environmental factors. The more susceptible you are the less stress is required to trigger schizophrenic symptoms.

Maximum of 5 marks if no reference to empirical evidence.

Mark Bands**8 – 10 marks Good answers**

The candidate will have accurately described either the genetic basis of intelligence or schizophrenia with reference to appropriate empirical evidence. Discussion will be thorough and evidence provided illustrates other factors with accuracy. The response is focused on the question.

4 – 7 marks Average answers

The candidate will have described either the genetic basis of intelligence or schizophrenia though lacking in detail. At the top of the band, there will be reference to empirical evidence but discussion will be limited. For 6/7 marks, there must be some discussion. There may be slight inaccuracy and/or irrelevance.

At the bottom of the band, the candidate will be largely descriptive in their response and will offer little evidence to support the genetic basis of intelligence or schizophrenia. Discussion may be little more than a comment. The response will be largely superficial.

1 – 3 marks Poor answers

The candidate will have recognised the role of inheritance but has presented a response with no reference to empirical evidence. The response may be inaccurate and/or confused.

Total AO1 marks for Question 2: 11

Total AO2 marks for Question 2: 9

Total marks for Question 2: 20 marks

SECTION B: RESEARCH METHODS**3****Total for this question: 20 marks**

(a) What might the psychologists conclude from the bar chart shown in **Figure 1**? (3 marks)

[3 marks: AO1 = 3, AO2 = 0]

AO1 Three marks for description of results.

Any combination of relevant points, eg pairs of girls show most friendly behaviour; boy-girl pairs show the least friendly behaviour; pairs of boys show more friendly behaviour than boy-girl pairs; boys show less friendly behaviour than girls; girls show more friendly behaviour than boys; same-sex pairs show more friendly behaviour than boy-girl pairs.

(b) (i) Identify the independent variable in this study. (1 mark)

[1 mark: AO1 = 1, AO2 = 0]

AO1 One mark for the sex/gender composition of the pairs of children or types of pairing.

(ii) Identify the dependent variable in this study. (1 mark)

[1 mark: AO1 = 1, AO2 = 0]

AO1 One mark for the frequency of friendly behaviour.

(c) State an appropriate hypothesis for this study. (2 marks)

[2 marks: AO1 = 0, AO2 = 2]

AO2 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: Children who are assigned in same-sex pairs will direct a higher frequency of friendly behaviour towards their playmate (AO2, 1) than children assigned to boy-girl pairs (AO2, 1).

Two-tailed: There will be a difference in the frequency of friendly behaviour within same-sex pairs (AO2, 1) and boy-girl pairs (AO2, 1).

Null: There will be no difference in the frequency of friendly behaviour within same-sex pairs (AO2, 1) and boy-girl pairs (AO2, 1).

(d) Identify the sampling method used by the psychologists in this study. (1 mark)

[1 mark : AO1 = 0, AO2 = 1]

AO2 One mark for opportunity sampling.
Credit may be given for quota sampling – based on boys/girls.

(e) Explain one methodological reason why it was important for both psychologists to observe the children in this study. (3 marks)

[3 marks: AO1 = 1, AO2 = 2]

AO1 One mark for reason identified, eg to permit checking for reliability.

AO2 Two marks for explanation of the reason identified, eg allows the psychologists to compare their records of observation (AO2, 1) and therefore ensure accuracy of categorising the social behaviours observed (AO2, 1).

(f) Distinguish between *participant* and *non-participant* observation. (3 marks)

[3 marks: AO1 = 2, AO2 = 1]

AO1 One mark for identification of each feature.

Participant observation is where the observer is, to some extent, part of the group of individuals being observed (AO1, 1).

Non-participant observation is where the observer is not part of the group of individuals being observed (AO1, 1).

AO2 One mark for explaining how they differ.

For example, distance, awareness of context, deception, influencing behaviour in different ways, ethical considerations, credit may be given for illustrating the difference using a relevant example.

(g) Explain **one** disadvantage of conducting this observation in a laboratory setting. (3 marks)

[3 marks: AO1 = 2, AO2 = 1]

AO1 One mark for correct identification of the disadvantage. Two marks for correct identification and elaboration of the disadvantage, eg low ecological validity (AO1, 1) – whether a test or method measures behaviour that is representative of naturally occurring behaviour (AO1, 1).

AO2 One mark for relating the disadvantage to the implications of this study, eg, the behaviours that the children display in the laboratory may not be typical of those displayed in the nursery (AO2, 1).

(h) (i) Identify **one** ethical issue raised by this study. (1 mark)

[1 marks: AO1 = 1, AO2 = 0]

AO1 One mark for identification of ethical issue, eg consent, deception, protection of participants.

(ii) Explain how the issue you have identified in your answer to (h)(i) could have been addressed. (2 marks)

[2 marks: AO1 = 0, AO2 = 2]

AO2 Two marks for explanation of how the ethical issue could be overcome, eg for consent, the psychologists would need to gain consent from the children's parents as they are under sixteen years of age (AO2, 1). This could be overcome in the form of a signed letter of agreement (AO2, 1).

Total AO1 marks for Question 3: 11

Total AO2 marks for Question 3: 9

Total marks for Question 3: 20 marks

SECTION C: PSYCHOLOGY OF GENDER**4****Total for this question: 20 marks**

- (a) In preparation for a careers interview, a class of students were asked to provide at least one trait that would characterise their personality. Persons **A**, **B** and **C** described themselves as “forceful”, “sympathetic” and “intelligent” respectively.

In your answer book, identify which trait is stereotypically

(i) masculine;

(ii) feminine.

(2 marks)

[2 marks: AO1 = 0, AO2 = 2]

AO2 Two marks for each trait correctly identified.

(i) forceful

(ii) sympathetic.

- (b) Distinguish between the terms *sex* and *gender*.

(3 marks)

[3 marks : AO1 = 2, AO2 = 1]

AO1 One mark for identification of each term.

AO2 One mark for distinction between the terms.

Example: Sex refers to the biological differences between males and females (AO1, 1).
Gender refers to the cultural attributes associated with the two sexes (AO1, 1).
The distinction being where gender can change, sex doesn't (AO2, 1).

- (c) Describe **one** case study in which gender was investigated. Indicate in your answer why the study was conducted, the method used, the results obtained, and the conclusion drawn.

(5 marks)

[5 marks : AO1 = 5, AO2 = 0]

- AO1** Any appropriate case study which investigated gender differences, eg Money and Erhardt (1972), Goldwyn (1979), Imperato and McGinley (1974), Little Hans.

One mark – why the study was conducted

One mark – information about the method

One mark – identification of the results

One mark – indication of the conclusion drawn

One mark – additional descriptive detail, eg detailed methodology

Since the question asks for a case study, the aim may be expressed as a general rationale, the method may be less structured and the results/conclusions expressed rather as a general outcome.

- (d) Describe and discuss the use of cross-cultural research to investigate gender differences. Refer to **at least one** study in your answer.

(10 marks)

[10 marks: AO1 = 5, AO2 = 5]

- AO1** Up to 5 marks for description of the use of cross-cultural research. Cross-cultural research involves studying different cultures – if behaviour is found to be similar then this leads us to view that differences are biologically based, regardless of external factors. Cross-cultural research is useful for investigating the nature/nurture debate in relation to gender differences. Researchers can provide a great insight into different cultural systems, beliefs and practices. Comparison to western cultures allows for a greater understanding of cultural diversity (Fromboise, Heyle and Ozer, 1990).

- AO2** Up to 5 marks for discussion of issues in relation to gender. For example, the importance of discovering innate, universal behaviours may be discussed. Cross-cultural research may raise issues such as invasion of privacy; the researcher may not understand the language or may misinterpret an action. Cultural biases produce expectations of gender roles which alter what the researchers ‘observe’. The observations from a sample may not be typical of the whole culture being studied - gender differences within a culture can vary as well as between cultures. Variables under investigation may not be culturally comparable. Problems with cultural bias (Mead, 1935) may be overcome by including at least one member of the culture being studied in the research team. (Castleden and Kurszewski, 2000).

Maximum of 5 marks if no reference to a study.

Maximum of 6 marks if no reference to the use of cross-cultural research.

Mark Bands**8 – 10 marks Good answers**

The candidate will have accurately described cross-cultural techniques and issues relevant to the study of gender. Discussion of the use of cross-cultural research with reference to at least one study is accurately presented throughout the response and with focus to the question.

4 – 7 marks Average answers

The candidate will have described the use of cross-cultural techniques and issues relevant to the study of gender. At the top of the band, discussion of the use will be present albeit limited. For 6/7 marks, there must be some discussion. There is reference to at least one study. The response may be slightly inaccurate and/or irrelevant.

At the bottom of the band the candidate should describe the cross-cultural technique and/or issues. There is some reference to gender, but the response lacks relevance in relation to the use. Discussion may be little more than a comment. At the bottom of the band, there will be no reference to a study.

1 – 3 marks Poor answers

The candidate should present some relevant content but there are inaccuracies in the description. No specific relation to gender is present in the response.

Total AO1 marks for Question 4: 12

Total AO2 marks for Question 4: 8

Total marks for Question 4: 20 marks

5

Total for this question: 20 marks

(a) Name **one** sex hormone and outline the effects that it might have on behaviour. (3 marks)

[3 marks: AO1 = 3, AO2 = 0]

AO1 One mark for correct identification of a sex hormone. Two marks for describing the effect of this hormone on male or female behaviour.

Example: Testosterone (AO1, 1). The effect of this hormone may be in terms of increased aggression (AO1, 1) and dominance in terms of sexual orientation (AO1, 1).

Oestrogen (AO1, 1). The effect of this hormone may give rise to premenstrual tension (PMT) (AO1, 1) which may cause females to display anti-social behaviours, eg crime (AO1, 1).

Credit may also be given for reference to non-human behaviour.

(b) Briefly describe Freud's explanation of the *Electra complex*. (3 marks)

[3 marks: AO1 = 3, AO2 = 0]

AO1 Three marks for correct description including three of the following features: phallic stage in girls, penis envy, castration, penis baby, unconscious conflict and resolution, role of parents, identification.

(c) **Jack, who is 5 years old, was watching his favourite cartoon on the television. The cartoon was about a boy who was rewarded for helping his father with jobs, including washing the car. After the cartoon had ended, Jack immediately went to his father and said, "Daddy, can we wash the car, please?"**

With reference to the social learning approach, explain the effect of the cartoon on Jack's behaviour. (4 marks)

[4 marks: AO1 = 2, AO2 = 2]

AO1 Two marks for reference to aspects of the social learning approach, eg modelling (observation/imitation), observation, identification, vicarious conditioning associated with gender, environmental influence – media.

AO2 Two marks for reference to the stimulus material that illustrates the aspects identified. The application should be detailed to gain two marks. For example, Jack has identified with the boy in the cartoon who he perceives as his role model. Jack sees this behaviour as gender appropriate and leads him to want to reproduce the behaviour observed.

(d) “A child’s understanding of gender develops in a series of stages over time.”

Discuss the cognitive approach to explaining gender development. Refer to empirical evidence in your answer. *(10 marks)*

[10 marks : AO1 = 4, AO2 = 6]

AO1 Up to 4 marks for description of the cognitive approach to gender development. Candidates are likely to refer to Kohlberg’s theory, where a child’s understanding of their own gender concept becomes more sophisticated with age. The three stages of gender development are:

Gender Identity – around two years, where a child is simply able to label his/her own sex correctly and to identify other people as boys or girls.

Gender Stability – between three-and-a-half and four-and-a-half years, where a child understands that people stay the same gender throughout life.

Gender Constancy – between four-and-a-half and seven years, where a child understands that someone stays the same biological sex even though s/he may appear to change by wearing different clothes, for example.

Alternatively, candidates may refer to Damon (1977) in demonstrating how a child’s understanding of gender develops with age. Martin and Halverson (1983) may be cited with reference to gender schema theory.

AO2 **Candidates will discuss the cognitive approach to gender development with reference to empirical evidence. For example, Slaby and Frey (1975) showed how pre-school children rated as having gender constancy actively seek information in developing gender-appropriate behaviour. Candidates may discuss how Kohlberg’s theory may be more descriptive than explanatory. The theory does not account for individual differences in a child’s understanding of masculinity/femininity. Candidates may contrast the cognitive approach with social learning theory – the development of a child’s schema through reinforcement and modelling.**

Maccoby (1980) found that 3-year-olds learn many gender-role stereotypes long before they attend to same-sex models. Money and Erhardt (1972) claimed that gender reassignment was difficult after the age of three. Candidates may contrast the development of gender concept with the biological approach – genetic and hormonal factors cause gender-appropriate behaviours.

Credit should only be given if the inclusion of other approaches is used to evaluate the cognitive approach.

Maximum of 5 marks if no reference to empirical evidence.

Mark Bands

8 – 10 marks **Good answers**

Candidates will have provided an accurate description of the cognitive approach to gender development. The discussion is presented in detail and with reference to appropriate empirical evidence. The response is presented with focus to the question and contains no inaccuracy and/or irrelevance.

4 – 7 marks **Average answers**

At the top of the band candidates will have provided some understanding of the cognitive approach to gender development. There will be discussion of the approach and reference to empirical evidence for 6 marks. There may be some inaccuracy and/or irrelevance.

At the bottom of the band candidates will have provided a response which is largely descriptive. There may be some discussion but this is little more than a comment. Maximum of 4 marks if there is no discussion.

1 – 3 marks **Poor answers**

Candidates may have referred to the cognitive approach to gender but there are inaccuracies in the description. The response is likely to be muddled and/or poorly focussed.

Total AO1 marks for Question 5: 12

Total AO2 marks for Question 5: 8

Total marks for Question 5: 20 marks

ASSESSMENT GRID - PYB1 JUNE 2004

Question	Weighting for knowledge and understanding (AO1)		Weighting for analysis and evaluation (AO2)		Total Marks
	Marks	Percentage	Marks	Percentage	
Q1 (a)	2		0		20
(b)	2		1		
(c)	2		3		
(d)	5	55	5	45	
Q2 (a)	0		2		20
(b)	3		0		
(c)	3		2		
(d)	5	55	5	45	
Q3 (a) (i)	3		0		20
(b) (i)	1		0		
(ii)	1		0		
(c)	0		2		
(d)	0		1		
(e)	1		2		
(f)	2		1		
(g)	2		1		
(h) (i)	1		0		
(ii)	0	55	2	45	
Q4 (a)	0		2		20
(b)	2		1		
(c)	5		0		
(d)	5	60	5	40	
Q5 (a)	3		0		20
(b)	3		0		
(c)	2		2		
(d)	4	60	6	40	