



ASSESSMENT and  
QUALIFICATIONS  
ALLIANCE

# Mark scheme

# June 2003

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## GCE

## Psychology B

### Unit PYB1

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## 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.

<b>Band 1</b>	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.
<b>Band 2</b>	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.
<b>Band 3</b>	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.

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

(a) Outline <b>one</b> assumption of the cognitive approach in psychology.	(2 marks)
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**[2 marks : AO1 = 2, AO2 = 0]****AO1** One mark for brief or slightly accurate answer.

Example: Thinking influences behaviour, the mind is like a computer.

Two marks if accurate and with some expansion.

Examples: The mind acts as mediator between the stimulus and the response; the mind and body are separate, the mind is as active and the body is passive; cognitive psychologists create models to represent thinking processes, humans as information processors. Controlled laboratory experiments are conducted from which inferences are made about cognitive processes.

(b) Identify and explain <b>one</b> way in which Darwin's work has influenced the development of psychology.	(3 marks)
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**[3 marks : AO1=2, AO2 =1]****AO1** One mark for identifying an influence and further mark for description.

Examples: Linking of human and non human animals (1) suggesting that the differences were in degree not kind (1). The use of natural observation (1) leading to the formulation of theories(1). Ideas of adaptation of species (1) which are linked to survival and become part of our instinctive responses(1), universality of behaviour (1).

Credit description which is implicit in examples.

**AO2** One mark for analysis of how the feature has influenced the development of psychology (methodology, theory etc.).

Examples: Influence on behavioural movement, influence on Piaget, evolutionary psychology, influence on Freud's theories, influence on cross-cultural research, understanding of nature/nurture.

- (c) With reference to the behaviourist approach in psychology, give **one** explanation as to why Hannah is now sick before she takes the drugs. (5 marks)

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

**AO1** Knowledge of appropriate concepts, eg learning by association, conditioning, role of stimulus-response.

**AO2** The correct application of the concepts identified to explain Hannah's behaviour.

Examples: If learning by association has been identified the candidate should be able to say that Hannah now associates the sickness from the drugs with the hospital itself. If stimulus-response is identified, the candidate should be able to pair the stimulus of the drug with the response of the sickness.

Candidates who choose to explain the problem using classical conditioning and charts based on CS and CR, CS +UCS = CR, etc should receive AO1 credit or full credit if explicitly linked to Hannah's behaviour. There is no requirement on candidates to talk specifically about classical conditioning, though if they do this should be credited.

- (d) Describe and discuss **at least two** features of the humanistic approach to understanding human behaviour. (10 marks)

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

**AO1** Candidates will have described at least two features of the humanistic approach in some detail or several features in less detail. Features could include the focus on self and self actualisation with reference to theorists such as Rogers and Maslow, including the hierarchy of human need. Each person is unique – focus on subjective experience, unconditional positive regard, client-centred approach. The idiographic approach, holism, the notion of the conscious and unconscious mind and the relationship between them - the conscious mind acting as the controlling factor, ideas concerning the possibility of free will which allows an individual to make choices about their life and which helps them to achieve their potential, the rejection of scientific methodology and the reliance on case studies, etc. A maximum of three marks will be given if the candidate only identifies features without offering some further description – as in a list.

**AO2** The features described in AO1 will be discussed demonstrating both strengths and limitations. They may discuss a strength and limitation of a theory such as Maslow's hierarchy. Alternatively they may discuss the strength and limitation of the humanistic approach overall, which could be done by comparison with other approaches. For example, recognising the individual nature of the approach as more ethical than approaches which take a more scientific approach, eg cognitive and which have been accused of dehumanising individuals by studying them in laboratory settings. However the lack of research in humanism makes it difficult to test the validity of the approach.

Maximum 6 marks if only one feature described and discussed.

**Mark Bands**

8 – 10 marks

**Good answers**

Candidates will have provided a detailed description of at least two features. These will have been discussed in a balanced way and the whole answer will be accurate with good use of psychological terminology. At the bottom of the band there may be a slight lack of balance between description and discussion and some minor inaccuracies.

4 – 7 marks

**Average answers**

At the top of the band the candidate will have described and discussed at least two features of the humanistic approach. There may be a lack of balance between description and discussion or the response to both parts of this section will be less detailed. At the bottom of the band there will either be a largely descriptive response or extremely limited description with discussion which could contain some inaccuracy or irrelevance.

1 – 3 marks

**Poor answers**

A largely irrelevant or extremely brief response which will be little more than statements of features. There will be extremely limited use of psychological knowledge/terminology. It could contain a good deal of inaccuracy or irrelevance.

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) Using an example, explain what is meant by *localisation of cortical function*. (3 marks)

[3 marks : AO1 = 1 AO2 = 2]

**AO1** Correct identification of the term.

**AO2** One mark for a correct example and a further mark for linking this to localisation of function.

Example: Localisation of function suggests that there are specific parts of the cerebral cortex which have specific functions (AO1). For example, the visual cortex (AO2) is responsible for converting electrical signals from the eye into visual images (sight)(AO2).

(b) Explain why twin studies are used by some psychologists to investigate the genetic basis of behaviour. (3 marks)

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

**AO1** For recognition that MZ/DZ twins have more genetic relatedness than any other two people. Credit if candidate assumes and only talks about identical or fraternal twins.

**AO2** Candidates should explain that because of the genetic relatedness it is possible to hold genetic variables constant(1) and therefore make inferences about whether behaviour is inherited or acquired (1).

Candidates may choose to talk about identical twins separated and identical twins raised together, or may compare identical twins with fraternal twins. Full credit will be given if the candidate chooses to answer this question in relation to intelligence or schizophrenia and concordance rates.

(c) In your answer book, name the parts of the neuron labelled **A, B, C** and **D** in **Figure 1** below. Clearly identify your answers as **A, B, C** and **D**. (4 marks)

[4 marks : AO1 =4, AO2 =0]

**AO1** One mark each for correct identification.

A – Nucleus/cell body

B – Axon

C – Myelin sheath

D – Dendrites

- (d) Describe the function of the adrenal glands **and** autonomic nervous system (ANS) in stressful situations. Use this knowledge to explain **each** of Gary's symptoms before **and** after the examination. (10 marks)

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

**AO1** Candidates will give an accurate description of ANS and role of the adrenal glands. The description could include such features as the relationship between the ANS and CNS and its almost automatic function in relation to particular organs in the body in particular the flight or fight response. The ANS has two divisions - sympathetic and parasympathetic whose functions are either to prepare the body for action or maintain and repair the body. The adrenal gland provides hormones including adrenaline which are released into the blood stream as a parallel action to sympathetic nervous system. Candidates may either name different features up to a maximum of 5 or name fewer features but with greater description.

Candidates must refer to both the ANS and adrenal glands for full marks.

**AO2** Candidates should refer to the stimulus material. There are 5 different responses identified in the stimulus material.

Lack of appetite is linked to the sympathetic division curtailing digestion (making more blood available for muscles and brain).

Lack of concentration linked to heightened arousal caused by extra adrenalin.

Sweating is linked to the body cooling mechanism, blood vessels on the surface dilating, to allow heat energy to be lost from the body. Blood is diverted away from the digestive system to the brain and muscles. This delivers more glucose and oxygen to the brain and muscles for respiration. This increases the energy released to the brain and muscles.

Hunger and tiredness relates to the parasympathetic system which is now acting to restore the body to its state of equilibrium by stimulating digestion and tiredness as the energy levels of the body are restored or conserved.

### Mark Bands

8 – 10 marks **Good answers**

The candidate will have accurately described the function of the ANS and adrenal glands and will have accurately linked the symptoms of sweating, lack of eating etc to the particular actions of the ANS and adrenal glands both before and after the examination.

4 – 7 marks **Average answers**

At the top of the band the candidate will have described the ANS and adrenal glands though this may be brief and could contain some slight inaccuracy. They will have linked the actions of the ANS to the symptoms which are described though there may be some inaccuracy. At the bottom of the band the description will be brief and the explanation contains a number of inaccuracies.

1 – 3 marks      **Poor answers**

A brief and possibly rather commonsense answer which does little more than restate the stimulus material

Total AO1 marks for Question 2: 11

Total AO2 marks for Question 2: 9

**Total marks for Question 2: 20 marks**



3

Total for this question: 20 marks

(a) State a null hypothesis for this study.	(2 marks)
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**[2 marks : AO1 = 0 AO2 = 2]**

**AO2** The candidate should predict that there will be no relationship/correlation (1) (responses referring to differences/effect should not be credited) between the two variables identified – mathematical ability and driving skill (1).

(b) (i) What is meant by the term <i>random sampling</i> ?	(2 marks)
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**[2 marks : AO1 =2, AO2 =0]**

**AO1** A sampling method in which each member of the target population (1) has an equal chance of being selected (1).

No marks for description of how this is done, eg pulling names out of a hat.

(ii) Give <b>one</b> advantage and <b>one</b> disadvantage of random sampling.	(2 marks)
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**[2 marks : AO1 = 2, AO2 = 0]**

**AO1** One mark for an advantage and one mark for a disadvantage.

Examples:

Advantages: Eliminates the possibility of researcher bias in selection, increased chance of representative sample.

Disadvantages: Very difficult to achieve due to having to identify all members of the target population, can result in an unrepresentative sample particularly if the sample is small in relation to the target population, skewed sample. Can be time consuming compared to other methods, eg opportunity sampling.

(c) State which of the following methods of investigation the psychologist used in this study:	(1 mark)
<ul style="list-style-type: none"><li>• observation;</li><li>• experiment;</li><li>• correlation.</li></ul>	

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

**AO1** Correlation

(d) Explain **one** difference between an experiment and a correlation study. (4 marks)

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

**AO1** One mark each for a correct reference to a feature of the experimental method and correlational design.

Example: Experiment, isolates and manipulates the independent variable to observe its effect on the dependent variable, controls the environment in order that extraneous variables may be eliminated, predicts cause and effect.

Correlation identifies variables and looks for a relationship between them.

**AO2** Marks awarded for explanation of the difference which has been identified. Some of this explanation may involve reference to features identified in AO1 but used as an explanation.

Example An experiment tests the effect which an independent variable has upon a dependent variable but a correlation looks for a relationship between two variables. This means that the experiment can predict cause and effect (causation) but a correlation can only predict a relationship.

(e) In your answer book, give an appropriate title for the scattergram. (2 marks)

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

**AO2** One mark for a brief title which lacks detail. Two marks for a correct title which accurately identifies it as a relationship and states what the axes are (ie scores on arithmetic test or score on the rally-driving test).

(f) What does the scattergram suggest about the relationship between the two abilities tested by the psychologist? (2 marks)

[2 marks : AO2 = 2]

**AO2** One mark for identifying that it is a positive correlation. A further mark for the strength, ie strong correlation (1), alternatively an accurate description of the relationship should also be credited, eg suggests that people who are good at driving skills are also good at solving mathematical tests (1), people who are poor at driving skills are also poor at mathematical tests (1).

(g) Identify and outline **one** ethical issue which the psychologist should have considered in this study. (2 marks)

[2 marks : AO1 =2]

**AO1** One mark for identification of the issue, eg informed consent, psychological well-being, confidentiality, conduct of psychologist etc and a further mark for outlining what this term means in relation to this study..

Example: Informed consent (1). Before the study took place each participant should have been told what the study involved, how long it might take, any possible problems which they might expect to find and the fact that they have the right to withdraw at any time. (Not all of these features would be necessary for the 2nd mark).

(h) (i) What is meant by a *case study*? (1 mark)

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

**AO1** An in depth study conducted on an individual, small group or organisation.

(ii) Give **one** strength and **one** weakness of case studies. (2 marks)

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

**AO1** One mark for strength and one for weakness.

Examples:

Strengths: Allows us to obtain more detailed information than can be obtained by any other single method, allows us to obtain insights which may stimulate new lines of enquiry, economical in challenging theories.

Weaknesses: One individual makes the information too limited for generalisation, information cannot be analysed statistically, and uniqueness makes it difficult to generalise to the general population.

Total AO1 marks for Question 3: 12

Total AO2 marks for Question 3: 8

**Total marks for Question 3: 20 marks**

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

(a) Using an example, outline what is meant by *cross-cultural research* in relation to gender.

(3 marks)

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

**AO1** One mark for brief or slightly inaccurate description. Two marks for accurate and detailed description which must relate to gender.

Example: Cross-cultural research is a method of investigation where two or more cultures are investigated for the purpose of comparison to consider the universality of gender roles.

**AO2** One mark for an appropriate example which could be a reference to a specific study such as Mead (1935) or Williams and Best (1990), or any two cultures.

(b) Explain the difference between *nature* and *nurture* in relation to gender.

(3 marks)

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

**AO1** Correct identification of the terms nature and nurture, nature relating to innate factors, nurture relating to environmental factors.

**AO2** Correct application of the terms to gender, explaining whether gender differences between men and women, such as sex roles, are the product of biological rather than social or cultural factors.

(c) Outline what is meant by the terms *identity* and *role*. With reference to the girl's story, give an example of gender identity and a gender role.

(4 marks)

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

**AO1** One mark for each correct outline of the terms. Role refers to a part which a person might expect to play. Identity refers to the sense someone has of what kind of person he/she is.

**AO2** Correct application of stimulus to the terms. Gender identity is reference to Tanya being a girl. Role is reference to that of carer or reference to domestic role (cooking).

- (d) Describe and discuss **two** problems which might arise when psychologists use observation to investigate gender differences in behaviour. Refer to **at least one** study to support your answer. (10 marks)

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

**AO1** Candidates will recognise and describe two problems which are relevant to observation studies. These problems may relate specifically to the method, eg limitation of suggesting causation, inability to understand motivation in non-participant studies, observer bias, change in participant behaviour owing to being observed, problems in operationalising and classification of behaviour, problems of interpretation. Alternatively they could discuss ethical issues such as invasion of privacy, problems in obtaining informed consent. The problem must be linked specifically to gender to obtain the full 5 marks.

**AO2** Candidates will discuss the issues raised with reference specifically to gender and at least one study will be referred to. Studies could include cross cultural studies such as Mead (1935), or observations within a laboratory setting, eg Condry and Condry (1976 ) or observations in a natural setting, eg Lloyd (1989), Dweck et al (1978) or content analysis, eg Manstead and McCulloch (1981). For example, if they have raised the issue of non-participant observation as in the Lloyd study, they can discuss the fact that this allows a degree of objectivity in the observation, though the fact that the observation was overt may have influenced the behaviour of the teachers and children and these changes would possibly be undetected and damage the validity of the study. Problems in classification involve the idea of the researcher imposing their own sex-role stereotype on what is categorised often leading to a self-fulfilling result in the study. A similar point can be made with reference to cross-cultural studies.

Candidates who select a particular study and discuss it can achieve maximum marks.

**Maximum 6 marks if only one problem is identified and discussed**

**Maximum 5 marks if no reference to a study**

**Mark Bands**

8 – 10 marks

**Good answers**

The candidate will have selected two problems which they will have described in some detail and the problems will be linked appropriately to gender research and supported by an appropriate study. Both problems will have been discussed thoroughly in a balanced manner. The whole response will be detailed and accurate with good use of psychological terminology.

4 – 7 marks

**Average answers**

At the top of the band the candidate will have selected two problems which they will have described and discussed with reference to a study of gender. The detail will be slightly less than for Band 1. There may be some slight inaccuracy but they will have related the issues to gender. At the bottom of the band the candidate will have given a brief response. They may not have referred to an appropriate study or offered any discussion of note.

1 – 3 marks

**Poor answers**

The candidate will have presented a very brief or muddled answer which will be limited in description and discussion and psychological content will be limited. There could be considerable inaccuracy and/or irrelevance. The candidate will not have referred to a study.

Total AO1 marks for Question 4: 11

Total AO2 marks for Question 4: 9

**Total marks for Question 4: 20 marks**

5

Total for this question: 20 marks

(a) What do social learning theorists mean by the term <i>modelling</i> ?	(2 marks)
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**[2 marks : AO1 = 2 AO2 = 0]****AO1** One mark for brief or slightly inaccurate answer. Two marks for accurate description.

Example: Modelling refers to behaviour which is observed (1), and, having been observed, can be repeated and imitated (1).

(b) Identify and describe <b>one</b> feature of Kohlberg's theory of development of gender concept.	(3 marks)
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**[3 marks : AO1 = 3, AO2 = 0]****AO1** One mark for correct identification of a feature and 2 marks for description.  
One mark for brief or slightly inaccurate description.  
Two marks if accurate and with detail.

Examples: Features could include specific stages, eg identity, stability, constancy. Alternatively candidates may refer to the idea of stages or gender schema theory.

Identity – refers to a child's knowledge (understanding) that they are male or female and are able to label other people as either male or female.

Stability – refers to a knowledge (understanding) that they are not only male or female but that they will always be the same sex.

Constancy – refers to the understanding (knowledge) that a child has that their identity will remain stable over time and that external appearances do not cause a change in gender. (Credit reference to Piaget's ideas of conservation).

(c) State how Jamie's chromosome pattern differs from that of most boys, and explain why psychologists who study gender might be interested in children like Jamie. (5 marks)

[5 marks : AO1 = 1, AO2 = 4]

**AO1** Recognition of typical chromosome pattern for males as XY.

**AO2** One mark for reference to the fact that Jamie has an extra X chromosome. Three marks for the explanation of why psychologists are interested in this type of research. The explanation should refer to the fact that by studying the development and behaviour of people with atypical chromosomes (1) and by comparing their development with that of people with typical chromosome patterns (1) they are able to make inferences as to what aspects of gender behaviour are innate. (1)

Some candidates may speculate that the child has Klinefelter's syndrome. If the explanation refers to the way in which people with this syndrome have demonstrated the role of genetic factors in the development of gender this should be credited. However no credit can be given for description of Klinefelter's syndrome.

(d) Describe and discuss the psychoanalytic approach to explaining gender identity. (10 marks)

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

**AO1** Candidates will describe the psychoanalytic approach to gender. Candidates may take a general view of psychoanalytic theory and describe the unconscious process, importance of interaction with parents, gender identity fixed in the early years, or assumptions of the psychoanalytic approach. Alternatively, it is likely that candidates will choose to describe Freud's theory in terms of the Oedipus **and** Electra complex in the phallic stage.

**AO2** Candidates will discuss the strength of this approach. In the case of Freud this will be very limited and probably be little more than illustrating the theory by reference to the case of Little Hans or Freud's self analysis. If a broader view has been taken there is an opportunity to discuss the work and evidence to support Chodorow. Discussion will also show the limits of the approach which may be done in terms of lack of evidence or evidence which refutes the theory, eg studies which show that children brought in single parent or same-sex families have no greater difficulty with gender identity than those brought up in traditional families. Alternatively candidates may also choose to present alternative theories such as Social Learning theory or the cognitive approach.

Although evidence will be credited as part of the answer candidates can achieve maximum marks without reference to studies.



**Mark Bands**

8 – 10 marks

**Good answers**

The candidate will have described either the psychoanalytic approach or a view within the psychoanalytic approach in some detail and with accuracy. They will have discussed the approach in a balanced manner and with good use of psychological terminology. The answer will be accurate and focused throughout.

4 – 7 marks

**Average answers**

At the top of the band the candidate will have described the approach though in less detail than Band 1 and there may be some slight inaccuracy. There will be discussion present though this may be limited and unbalanced. At the bottom of the band the response may be largely descriptive and will be extremely brief and probably contain inaccuracy or some irrelevance.

1 – 3 marks

**Poor answers**

The candidate will have presented a response which contains basic elements of the psychoanalytic approach. There will be inaccuracy and limited use of psychological knowledge or terminology.

Total AO1 marks for Question5: 11

Total AO2 marks for Question 5: 9

**Total marks for Question 5: 20 marks**

## ASSESSMENT GRID

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