



## General Certificate of Education

# Psychology 5186/6186 *Specification B*

*PYB5 Perspectives, Debates and Methods in Psychology*

## Mark Scheme

*2006 examination – June 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.

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.

## **PYB5**

### **Quality of Written Communication**

Candidates are required to:

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

The assessment criteria for quality of written communication apply only to questions with 12 marks in A2 unit test questions. The following criteria should be applied in conjunction with the question mark scheme.

The bands for quality of written communication must be regarded as part of the mark scheme even though they are listed separately. If a candidate's quality of written communication fails to meet the achieved content band, then s/he will lose one mark.

#### **Band 1:           Excellent quality of written communication**

The candidate expresses most ideas clearly and fluently, with consistently effective use of psychological terminology. Arguments are well structured, with appropriate use of sentences and paragraphs. There are few, if any, minor errors of grammar, punctuation and spelling. The overall quality of language is such that meaning is rarely, if ever, obscured.

#### **Band 2:           Good to average quality of written communication**

The candidate expresses most ideas clearly and makes some appropriate use of psychological terminology. The answer is organised, using sentences and paragraphs. Errors of grammar, punctuation and spelling may be present but are mostly minor, such that they obscure meaning only occasionally.

#### **Band 3:           Average to poor quality of written communication**

The candidate expresses basic ideas clearly but there may be some ambiguity. The candidate uses key psychological terminology inappropriately on some occasions. The answer may lack structure, although there is some evidence of use of sentences and paragraphs. There are occasional intrusive errors of grammar, punctuation and spelling which obscure meaning.

#### **Band 4:           Poor quality of written communication**

The candidate shows deficiencies in expression of ideas resulting in frequent confusion and/or ambiguity. Answers lack structure, consisting of a series of unconnected ideas. Psychological terminology is used occasionally, although not always appropriately. Errors of grammar, punctuation and spelling are frequent, intrusive and often obscure meaning.

**Note:** The main body of the answer should be assessed for Quality of Written Communication. Neither a sketched plan at the start of an answer, nor a list of points at the end of an answer where a candidate has clearly run out of time, should be assessed for quality of written communication.

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## SECTION A: Perspectives in Psychology

1

**Total for this question: 20 marks**

- (a) Outline **one** feature of social learning theory. Illustrate your answer with an example of behaviour. *(4 marks)*

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

**AO1** One mark for identifying a feature of social learning theory. Possible features are imitation, models, modelling, observation, cognitive mediating variables, identification, vicarious learning, vicarious conditioning. Accept role of the environment.  
One mark for an expansion of the selected feature. Thus for imitation answer could be along the lines of ‘the copying of another person’s behaviour’.

**AO2** One mark for application to an appropriate example, such as a child observing the behaviour of a model on TV.  
Second mark for an expansion of the example, such as the observed behaviour, eg throwing a punch can then be imitated/copied. Accept research examples.

- (b) Outline **two** strengths of the cognitive approach in psychology. *(4 marks)*

**[AO1=4, AO2=0]**

**AO1** For each strength, one mark for clear identification of the strength, eg emphasises the importance of mediational processes between stimulus and response, practical insights offered, scientific approach.  
Second mark for expansion, such as reference to the types of processes (perception, thinking), or examples of practical insights or use of experiments to infer internal cognitive processes.

- (c) Discuss how the biological perspective helps psychologists understand human behaviour. In your answer, refer to **at least two** topics you have studied in psychology. *(12 marks)*

**[AO1=4, AO2=8]**

Where relevant evidence is presented it should be credited. It may gain AO1 and/or AO2 credit.

**AO1** Marks can be acquired by demonstrating relevant knowledge and understanding of the biological perspective, eg influence of genes, neurotransmitters, hormones on behaviour, the role of the CNS and in particular the different parts of the brain in behaviour. Marks for linking topic areas to biology, eg gender development, atypical behaviour, memory, autism, criminological psychology, intelligence, etc.

**AO2** These marks are to be awarded for analysis, by demonstrating awareness of the contributions of the perspective to an understanding of behaviour, for evaluation of the approach and/or its contributions and for application of the biological perspective to topic areas. It is expected that candidates will select a topic area, apply and evaluate the biological perspective as an explanation of behaviour, making clear the contribution of the perspective to an understanding of behaviour. Credit references to other perspectives as a means of comparison and that the biological perspective provides counter-arguments to the nurture side of the nature-nurture debate. Credit any reference to reductionist explanations and implications for a scientific understanding of behaviour.

**Maximum of 8 marks if only one topic area referred to**

## Mark Bands

### **12 - 10 marks Excellent answers**

The contributions are clearly stated and applied to at least two topic areas. There is adequate descriptive information provided which is both relevant and accurate. Analysis shows a very sound understanding of the contributions made by the perspective to an understanding of behaviour. A good breadth of knowledge and understanding is shown and the answer is organised. Any references made to studies or to other perspectives are presented in the context of the discussion as a whole. A line of argument is clear and the discussion is balanced.

### **9 -7 marks Good to average answers**

A generally accurate response but less analysis than for the top band. An attempt to apply contributions to an understanding of at least two topic areas is made at the top and middle of the band, some analysis attempted and discussion is adequate for both topics or good for at least one. Discussion must be present in the answer but will lack the balance of the top band. Most of the answer is focused but there may be some irrelevance and/or minor misunderstanding. A good answer but only dealing with one topic area will fall at the bottom of this band.

### **6 - 4 marks Average to poor answers**

A generally descriptive response with some attempt to outline possible contributions of the perspective. There will be little analysis and discussion will be weak. There will be a minimal attempt at applying the contributions to an understanding of one topic area at the top of the band. At the bottom end and middle of the band a topic may not be included or there may be some confusion. Descriptive responses covering the assumptions of the perspective will fall into the middle/bottom of this band.

### **3 -1 marks Poor answers**

Some relevant points but no analysis. Answers will be brief; knowledge and understanding limited. There will be no attempt to link to topic areas. Structure of the answer may be weak, possibly a series of points.

## Synoptic assessment

By being required to apply the biological perspective to topic areas, candidates are invited to make links with other modules at both AS and A2. The requirement to 'discuss' will encourage candidates to reflect on most areas of the specification including other perspectives and debates.

Total AO1marks for Question 1: 10  
Total AO2 marks for Question 1: 10  
**Total marks for Question 1: 20**

2

**Total for this question: 20 marks**

- (a) In the context of humanistic psychology, outline what is meant by **each** of the following:
- (i) promoting personal growth;
  - (ii) valuing individual experience. *(4 marks)*

**[AO1=4, AO2=0]****AO1** Two marks to be awarded for outlining each.

One mark for defining 'promoting personal growth'. Possible answers may cover the following: developing and changing as a person to become more fulfilled, satisfied and achieving in life.

Self - actualisation or the realisation of a person's full potential.

One mark for an expansion, eg for Rogers, this occurs with the fully functioning person.

For Maslow, this occurs through satisfaction of deficiency needs to allow for growth needs to be satisfied.

Credit answers which deal with what may hinder personal growth.

One mark for defining 'valuing individual experience'; the individual experience of a person which involves subjective perceptions and feelings are seen to be as valid or that the experience is valued for what it is and how the person reports it.

One mark for an expansion such as the experience of a person is not questioned or challenged but attempts are made to understand it, or that, to understand a person, the humanistic psychologist needs to see things from that person's perspective.

- (b) Explain the function of Freudian defence mechanisms. *(4 marks)*

**[AO1=2, AO2=2]****AO1** Marks can be given for a definition of a defence mechanism and/or stating the function of a defence mechanism.

Answers should refer to 'an unconscious strategy', 'the protection of the conscious mind/ego from anxiety'.

**AO2** Marks are to be given for explaining the function of defence mechanisms.

One mark for each relevant point made. Reference could be made to the ego, the demands made upon the ego, internal and external conflicts and that as a result of ego defence mechanisms, the individual is better able to cope with a situation. Credit explanations for either defence mechanisms in general or a named defence mechanism. One example that illustrates the function can receive full credit.

- (c) 'Each major perspective in psychology has something different to offer in explaining behaviour.'

Discuss this statement. In your answer, refer to **at least two** perspectives in psychology.

(12 marks)

[AO1=4, AO2=8]

Where relevant evidence is presented, it should be credited. It may gain AO1 and/or AO2 credit.

**AO1** 4 marks may be awarded for knowledge and understanding of the chosen perspectives (normally 2 + 2). It is expected that the key features or assumptions of these will be described, reflecting the different explanations of human functioning. Thus for the biological approach, explanations may be advanced at the level of genes, biochemistry, the brain and N.S., for the behaviourist approach at the level of stimulus - response connections or learned behaviours from the environment, for the psychoanalytic approach, unconscious processes, for the cognitive, explanations at the level of internal mental processes and the humanistic approach, subjective, conscious, individual experience.

**AO2** Marks are to be awarded for analysis, eg focusing on the unique aspects of each perspective in offering an explanation for human behaviour, for discussing whether the perspectives are complementary rather than competing, for evaluating the explanations and for application by linking to an appropriate behaviour. Possible behaviours offered for discussion may be atypical behaviour, gender, autism, criminal acts, etc.

### Mark Bands

#### 12 - 10 marks **Excellent answers**

The relevant perspectives and behaviour (s) are clearly identified. There is adequate descriptive information provided which is both relevant and accurate. Analysis shows a very sound understanding of perspectives and their application to behaviour is appropriate and accurate. It is clear from the discussion that each perspective identified has something different to offer in explaining behaviour. A good breadth of knowledge and understanding is demonstrated and the answer is organised. A line of argument is clear.

#### 9 – 7 marks **Good to average answers**

A generally accurate response but less analysis and/or less breadth than for the top band. An attempt to discuss the statement with reference to at least two perspectives in explaining behaviour is made, with some analysis and/or evaluation included. Discussion must be present in the answer. Most of the answer is focused but there may be some irrelevance and/or minor misunderstanding.

**6 – 4 marks    Average to poor answers**

A generally descriptive response. Application to behaviour may not be included. There will be little analysis and discussion will be weak. There may be a minimal attempt at addressing the uniqueness of the perspectives chosen. Descriptive responses of behaviour and/or perspectives will fall into this band. Answers based on one perspective only will probably fall into this band.

**3 – 1 marks    Poor answers**

Some relevant points but no analysis. Answers will be brief; knowledge and understanding limited. There will be no real attempt to link to explanations of behaviour. Structure of the answer may be weak, possibly a series of points.

**Synoptic assessment**

By being required to discuss at least two perspectives and their differences in explaining behaviour, candidates are invited to make links with any of the modules. The requirement to 'discuss' the statement will encourage candidates to reflect on most areas of the specification including the philosophical debates.

Total AO1 marks for Question 2: 10

Total AO2 marks for Question 2: 10

**Total marks for Question 2: 20**

**SECTION B: Debates in Psychology**

3

**Total for this question: 20 marks**

(a) Briefly discuss **one** problem with common-sense explanations of human behaviour. (4 marks)

[AO1=2, AO2=2]

- AO1** Two marks for knowledge and understanding of a problem with common-sense explanations of human behaviour.  
Answers are expected to state that common-sense explanations are often wrong/inconsistent with empirical evidence, tend to oversimplify aspects of the world they purport to explain, tend not to be tested against reality in the same way that psychologists might test their own predictions, are frequently contradictory.  
Two marks for an accurate answer which includes some detail/expansion.  
One mark for a brief response.
- AO2** Two marks for the discussion of the problem identified. Answers could deal with evaluating common-sense explanations by comparison with scientific enquiry or by discussing the value and reliability of common-sense explanations. Analysis could be demonstrated by discussing implications of the problem and application by reference to an example of a common-sense explanation and/or research.  
Two marks for an accurate and full discussion.  
One mark for a brief attempt.  
Discussion must deal with one problem only.

(b) Outline **two** limitations of the scientific approach in psychology. (4 marks)

[AO1=4, AO2=0]

- AO1** Two marks for an outline of each limitation.  
Answers will most probably address methodological issues but accept theoretical/philosophical issues too. For methodological issues answers may deal with objectivity and control, ethical issues related to research, the problems of experimenter bias and demand characteristics, sampling issues, ecological validity, etc. For theoretical/philosophical issues, answers may deal with determinism and reductionism.  
For each limitation, award two marks for an accurate outline which contains sufficient detail to convey why it is a limitation.  
One mark for a brief answer.

(c) 'Psychology is a science.'

Discuss this statement. In your answer, refer to **at least two** perspectives in psychology.

*(12 marks)*

**[AO1=4, AO2=8]**

Where relevant evidence is presented it should be credited. It may gain AO1 and/or AO2 credit.

**AO1** Up to 4 marks for describing the features of science, eg definable subject matter, hypothesis testing, systematic approach, theoretical basis, prediction and control, replicability, generalisation, objectivity, empiricism, unbiased and objective collection of data. Alternatively, up to 4 marks for a description of the scientific features within the chosen perspectives. Thus, for behaviourism, biological and cognitive approaches, reference could be made to objectivity, models of unobservable behaviour and experiments to confirm/refute, etc.

**AO2** Eight marks are for discussing the statement. Candidates will probably discuss whether the different perspectives adhere to these features and some of the problems and subtleties, such as the issue of objectivity (degrees of objectivity-Popper). For the behaviourist approach, the discussion could focus on parsimonious theories of learning, precise and refutable hypotheses, observable behaviour. For the biological and cognitive approaches, discussion could focus on objective subject matter and experimental methodology, etc. For the psychodynamic approach, discussion could focus on the lack of prediction of behaviour, unfalsifiable and unrefutable theories, problems of sampling and the use of the case study method, and for the humanistic approach, the study of the individual and conscious experience. Credit answers which deal with philosophical and theoretical issues such as for the humanistic approach, the rejection of determinism and science or for the behaviourists, the view that only behaviours themselves rather than any internal mechanisms are needed to explain behaviour. Credit answers which discuss the aims of science: description, understanding, prediction and control and thus could accommodate the psychoanalytic approach as scientific (great explanatory power and understanding of behaviour). Any discussion of the assumptions of science such as determinism, positivism, predictability, a coherent body of knowledge, etc should also gain credit.

**Maximum of 8 if only one perspective is referred to**

## Mark Bands

### **12 - 10 marks Excellent answers**

The statement is applied to at least two perspectives. For each there is accurate description and sufficient detail. Analysis and application are in evidence and the information presented shows a very sound understanding of features of a science as applied to each perspective selected. The answer is organised and the discussion is full, well balanced and focused on the question throughout. Any research quoted is relevant and incorporated into the discussion. If more than two perspectives are offered then breadth of knowledge can be credited as long as the answer demonstrates AO2 skills. There is a conclusion referring to the statement in the question.

### **9 - 7 marks Good to average answers**

A generally accurate response but less analysis than for the top band. At the top of the band two perspectives are referred to and there is sound knowledge and understanding of features of a science as applied to each perspective selected. Some analysis is attempted and discussion is adequate for both or good for at least one. Unbalanced but otherwise good answers will fall into this band. Most of the answer is focused but there may be some irrelevance and/or minor misunderstanding. An excellent response dealing with just one perspective will fall in the middle or at the bottom of this band.

### **6 - 4 marks Average to poor answers**

A generally descriptive response with some outline of the features of a science as applied to the chosen perspectives. The answer shows little analysis. Discussion, if attempted, will be weak. Answers dealing with one perspective will probably fall into this band though at the top end there must be some analysis or discussion. There may be considerable irrelevance and/or inaccuracy.

### **3 – 1 marks Poor answers**

Some relevant content but no analysis. Answers will be brief; knowledge and understanding limited. There will probably be substantial inaccuracies and/or irrelevance. Structure of the answer may be weak, possibly a series of points.

## Synoptic assessment

This question draws on knowledge and understanding gained in the AS unit as well as in this A2 unit. It allows candidates to draw on knowledge of what constitutes a science and the features of the scientific approach including its aims. These themes are regularly revisited in the topic areas they have studied in all of the units, as well as the two coursework units.

Total AO1 marks for Question 3: 10

Total AO2 marks for Question 3: 10

**Total marks for Question 3: 20**

4

**Total for this question: 20 marks**

- (a) In the context of the free will and determinism debate in psychology,
- (i) outline what is meant by *determinism*;
  - (ii) suggest why psychological explanations of behaviour are usually deterministic.
- (4 marks)*

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

(i)

**AO1** One mark for a brief outline, eg belief or assumption that behaviour is caused/governed/dictated/influenced by external or internal factors acting upon the individual.  
Second mark for an expansion, such as detail about internal/external factors or implications for responsibility or distinction between ‘soft’ and ‘hard’ determinism.

(ii)

**AO2** One mark for each relevant point made. These could be that the ideas of determinism are compatible with science (1), science is seen as a successful route to knowledge (1), this allows cause-effect explanations (1), can predict and control behaviour (1).  
Credit answers which deal with the problem of free will, eg inconsistent with the assumptions of science.  
Credit one example which illustrates.

- (b) Outline **one** strength and **one** limitation of the nomothetic approach in psychology.
- (4 marks)*

**[AO1=4, AO2=0]**

**AO1** Allow two marks for a strength and two marks for a limitation.  
Allow one mark for identifying each. For strength answers could deal with; accords with the deterministic law-abiding nature of science or that the ability to generalise laws from limited instances is very useful in predicting and controlling behaviour.  
Second mark is for an expansion which can be by way of an example or by comparison with the idiographic approach.  
For limitation, answers could deal with; the approach leaves us with a more superficial understanding of any one person, tells us what people have in common but ignores what makes us individual, generalisations may be too inaccurate for the individual.  
Second mark is for an expansion which can be by way of an example or by comparison with the idiographic approach.

- |  |
|--|
| (c) Discuss the role of the environment in explaining behaviour. In your answer, refer to <b>at least two topics</b> you have studied in psychology. <span style="float: right;">(12 marks)</span> |
|--|

[AO1=4, AO2=8]

Where relevant evidence is presented it should be credited. It may gain AO1 and/or AO2 credit.

- AO1** Allow a maximum of two marks for outlining the heredity-environment debate. Marks can be awarded for relevant knowledge and understanding of explanations of behaviour relating to the topics chosen, the standing of different perspectives in psychology in their focus on the role of the environment in explaining behaviour, the methods employed to investigate the role of the environment, eg twin and adoption studies, enrichment studies, cross-cultural differences. Credit references to the different types of environment, eg inner-biological, physical–environmental, sociocultural, shared and unshared, active/passive.
- AO2** Eight marks are for the discussion of the role of the environment in explaining behaviour. There is scope for analysis, evaluation and application. Analysis and application can be demonstrated with reference to both research and to topic areas. Possible topics are schizophrenia, child development, autism, attachment, criminal behaviour, factors in alcohol abuse, intelligence, language and gender. Analysis may be shown by discussing how psychologists have tried to establish the role of the environment in explaining behaviour, the implications of environmental determinism (prediction and control of behaviour). Evaluation can cover both theoretical and methodological difficulties in investigating the role of the environment in explaining behaviour and the need to consider an interactionist approach.

**Maximum of 8 if only one topic is referred to**

### Mark Bands

**12 – 10 marks Excellent answers**

The role of the environment is clearly addressed and thoroughly discussed with reference to two topic areas. For each there is accurate description and sufficient detail. Analysis and application are in evidence and the information presented shows a very sound understanding of the role of the environment. The answer is organised and the discussion is full, well balanced and focused on the question throughout. Any research quoted is relevant and incorporated into the discussion. If more than two topics are offered then breadth of knowledge can be credited as long as the answer demonstrates AO2 skills.

**9 - 7 marks Good to average answers**

A generally accurate response but less analysis than for the top band. At the top of the band at least two topics are referred to and knowledge and understanding of the role of the environment is demonstrated. Some analysis is attempted and discussion is adequate for both topics or good for at least one. Unbalanced but otherwise good answers will fall into this band. Most of the answer is focused but there may be some irrelevance and /or minor understanding. An excellent response dealing with just one topic will fall in the middle or at the bottom of this band.

**6 - 4 marks**     **Average to poor answers**

A generally descriptive response with some outline of the role of the environment in explaining behaviour. At the top of the band there must be an attempt to apply the role of the environment to at least one topic. The answer shows little analysis. Discussion if attempted will be weak. Answers dealing with one topic will probably fall into this band though at the top there must be some analysis or discussion. There may be considerable irrelevance and/or inaccuracy.

**3 - 1 marks**     **Poor answers**

Some relevant content but no analysis. Answers will be brief; knowledge and understanding limited. There will be probably be substantial inaccuracies and/or irrelevance. Structure of the answer may be weak possibly a series of points.

**Synoptic assessment**

This question allows candidates to draw on knowledge and understanding gained in the AS unit as well as in this A2 unit and relate to an overarching issue in psychology. The heredity-environment debate in psychology has to be appreciated as a general discussion point for psychology.

Total AO1 marks for Question 4: 10

Total AO2 marks for Question 4: 10

**Total marks for Question 4: 20**

### SECTION C: Methods in Psychology

5

Total for this question: 20 marks

(a) Give <b>one</b> reason why the psychologist used a two-tailed test. <span style="float: right;"><i>(1 mark)</i></span>
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[AO1=0, AO2=1]

**AO2** There is no indication of any previous research in the stem of the question.  
No suggestion in the aim of a direction.  
Either reason can be credited for 1 mark.

(b) State <b>two</b> conditions which need to be met in order to use the sign test. <span style="float: right;"><i>(2 marks)</i></span>
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[AO1=2, AO2=0]

**AO1** The data needs to be converted to the nominal level or data in categories/frequencies.  
The design must be related.  
A difference between the two conditions is being investigated and not a correlation.  
1 mark for each condition up to a maximum of 2.

(c) The sign test conducted on the data in <b>Table 1</b> resulted in a 10% ( $p \leq 0.10$ ) probability. What conclusion should the psychologist draw from this result? Explain your answer. <span style="float: right;"><i>(2 marks)</i></span>
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[AO1=0, AO2=2]

**AO2** The probability is greater than the minimum acceptable level for a statistically significant difference (1 mark)  
or greater than 0.05 level (1 mark)  
Therefore the results are not significant (1 mark).  
Accept answers which state that the psychologist cannot reject the null hypothesis (1 mark).

(d) Briefly describe how the psychologist might have obtained a representative sample of 150 of the bank's customers. <span style="float: right;"><i>(2 marks)</i></span>
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[AO1=0, AO2=0, AO3=2]

**AO3** Marks are to be allocated for description of how sampling is to be conducted. No credit can be given for naming the technique.  
Allow 1 mark for a brief point, eg use a computer to generate numbers or use a random number table. Second mark for an expansion, eg every customer in the target population is allocated a number. The people who hold the first 150 numbers as you move through the table will be selected.  
Accept any descriptions based upon stratified sampling. 1 mark for reference to specified groups appearing in numbers proportional to their size in the target population. Second mark for random selection from each subgroup.  
Other accepted descriptions may be based upon quota sampling and systematic random sampling.

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(e) Identify **two** advantages of using questionnaires in psychological research. (2 marks)

[AO1=2, AO2=0]

**AO1** 1 mark for each advantage to a maximum of two.  
Possible advantages may include: enables the collection of large amounts of standardised data very quickly.  
Can be highly replicable and easy to score (unless open questions are used).  
If items are open questions then the data can be rich in detail.  
Allow investigators to focus their attention on very specific areas of interest.  
Allow for study of sensitive issues.

(f) (i) Name an appropriate statistical test that the psychologist could have used to investigate the difference in the waiting times before hanging up when music was played and when there was no music played. (1 mark)

[AO1=0, AO2=1]

**AO2** The unrelated 't' test (or independent 't' test) or Mann-Whitney U test. (1 mark).

(ii) With reference to **Study 2**, state **two** factors which justify the use of the statistical test you have given in (i) above. (2 marks)

[AO1=0, AO2=2]

**AO2** 1 mark for each factor to a maximum of 2.  
Time in seconds or interval data/ratio data. .  
Standard deviations are similar which suggests homogeneity of variance.  
The design was unrelated.  
A test of difference.  
For Mann-Whitney, accept that data can be reduced to an ordinal scale and that from the information given, it is not possible to make assumptions about the distribution of the times.

(g) (i) State what is meant by a *type 1 error*. (1 mark)

[AO1=1, AO2=0]

**AO1** A type 1 error occurs when, following statistical analysis, the null hypothesis is rejected when in fact it might be true or similar (1 mark).

(g) (ii) In **Study 2**, what is the probability of a type 1 error? Explain your answer. (2 marks)

[AO1=0, AO2=2]

**AO2** The probability of making a type 1 error is 0.01 (or less) (1 mark) or 1% (1 mark).  
As statistical tests deal with probabilities and not certainties, a p value of 0.01(or less) means that the probability of the results being due to chance is 0.01(or less). If this is the case but the null is rejected then the error has occurred. (1 mark)  
Accept a similar meaning.  
Accept answers which state that the probability is less than if a difference was found at 5% (0.05) level (1 mark).

(h) Explain **one** possible reason why the psychologist decided to conduct the follow-up investigation (**Study 2**). (3 marks)

[AO1=1, AO2=2]

**AO1** One mark for identification of a possible reason. These may be to do with the limitations of the questionnaire, such as questionnaires rely on self-report or the need to give socially desirable answers or participants lack objectivity in assessing their behaviour.  
Reasons may also be advanced to do with the 10% probability found after the first study and so the research is regarded as worth pursuing though procedure would need to be tightened and/or altered.

**AO2** 2 marks for the explanation which should be an expansion of the reason given. Award marks for each point made.  
Explanations could deal with the advantage of study 2 compared with the questionnaire such as actual behaviour is now being recorded, time is being measured which is objective and can be verified. The manipulation of the presence of music allows cause and effect relationships to be assessed.  
Credit references to the increased reliability and/or validity of study 2 with actual behaviour measured in seconds arguably more valid as an indication of how long people are prepared to wait than self reports.

(i) Suggest **one** way the psychologist could take account of ethical considerations in his research. (2 marks)

[AO1=0, AO2=1, AO3=1]

**AO2** 1 mark for identifying an issue relevant to the research.  
The issue can be related to the questionnaire, to study 2 or to both.  
All ethical issues are relevant but some examples may be; *confidentiality* with respect to both the questionnaire and study 2 as customers could potentially be identified, *consent* which is a particular issue for study 2 as participants' calls are being monitored for the purpose of research, *debriefing* for study 2 as there should be a full explanation of the aim and procedures used to collect all the data. *The right to withdraw* is an issue for the questionnaire as even if the respondents have returned the questionnaire they still have the right to withdraw their data and for study 2, even though they may not be aware of any involvement in research which in fact rests on their continued participation they likewise have the right to withdraw their data.

**AO3** 1 mark for how the psychologist could take account of the identified issue.  
For confidentiality, respondents should be assured that all data is anonymous and that no names will be used. For both the questionnaire and study 2, the psychologist must make sure that any unique identifying information is removed. For consent, this can be gained in the questionnaire by being informed of the nature of the study and a request to use the information. For study 2, a message should be left on the system that some of the calls may be monitored for the purpose of research with an option for those who wish not to be involved. The debriefing could be delivered by the call operator with an option to withdraw data. The right to withdraw data from the results of the questionnaire, even if returned, should be clearly communicated in the text.

Total AO1 marks for Question 5: 6

Total AO2 marks for Question 5: 11

Total AO3 marks for Question 5: 3

**Total marks for Question 5: 20**

**ASSESSMENT OBJECTIVE GRID – PYB5:  
PERSPECTIVES, DEBATES AND METHODS IN PSYCHOLOGY**

Question	Assessment Objectives						Total Marks
	AO1 Knowledge and Understanding		AO2 Analysis and Evaluation		AO3 Psychological Investigations		
	Marks	%	Marks	%	Marks	%	
<b>1</b> (a)	2		2				
(b)	4		0				
(c)	4		8				
Total	10	50	10	50			
<b>2</b> (a)	4		0				
(b)	2		2				
(c)	4		8				
Total	10	50	10	50			
<b>3</b> (a)	2		2				
(b)	4		0				
(c)	4		8				
Total	10	50	10	50			
<b>4</b> (a) (i)	2		0				
(a) (ii)	0		2				
(b)	4		0				
(c)	4		8				
Total	10	50	10	50			
<b>5</b> (a)	0		1		0		
(b)	2		0		0		
(c)	0		2		0		
(d)	0		0		2		
(e)	2		0		0		
(f) (i)	0		1		0		
(f) (ii)	0		2		0		
(g) (i)	1		0		0		
(g) (ii)	0		2		0		
(h)	1		2		0		
(i)	0		1		1		
Total	6	30	11	55	3	15	20