

GCE 2004  
*June Series*



# Mark Scheme

## Psychology A (PYA3)

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

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*Dr. Michael Cresswell Director General*

**UNIT 3 (PYA3)**  
**QUALITY OF WRITTEN COMMUNICATION (QoWC)**

|                |  |
|----------------|--|
| <b>2 marks</b> | The work is characterised by the <b>ACCURATE</b> and <b>CLEAR</b> expression of ideas, a <b>BROAD RANGE</b> of specialist terms and only <b>MINOR ERRORS</b> in grammar, punctuation and spelling. |
| <b>1 mark</b>  | The work is characterised by a <b>REASONABLE</b> expression of ideas, the use of a <b>REASONABLE RANGE</b> of specialist terms and <b>FEW ERRORS</b> of grammar, punctuation and spelling.         |
| <b>0 marks</b> | The work is characterised by a <b>POOR</b> expression of ideas, <b>LIMITED USE</b> of specialist terms and <b>POOR</b> grammar, punctuation and spelling.  |

**ASSESSMENT OBJECTIVES ONE, TWO AND THREE**

|            |   |
|------------|---|
| <b>AO1</b> | Assessment objective one = knowledge and <i>understanding</i> of psychological theories, terminology, concepts, studies and methods and communication of knowledge and understanding of psychology in a clear and effective manner.                             |
| <b>AO2</b> | Assessment objective two = analysis and <i>evaluation</i> of psychological theories, concepts, studies and methods and communication of knowledge and understanding of psychology in a clear and effective manner.  |
| <b>AO3</b> | Assessment objective three = <i>design, conduct</i> and <i>report</i> psychological investigation (s) choosing from a range of methods, and taking into account the issues of reliability, validity and ethics, and collect and draw conclusions from the data. |

**SECTION A – SOCIAL INFLUENCES****1****Total for this question: 30 marks**

|   |           |
|---|-----------|
| (a) (i) Explain what is meant by social influence.  | (3 marks) |
| (ii) Select <b>two</b> forms of social influence and explain the difference between them. | (3 marks) |

**Marking criteria**

(i) Social influence is the term given to the way in which an individual's behaviour, attitudes or beliefs are changed in some way due to the presence or actions of other people. It refers to the effect one person or a group of people has on another person or group of people.

**Marking allocation**

|                |   |
|----------------|---|
| <b>3 marks</b> | Explanation of social influence is both <b>accurate</b> and <b>detailed</b> . For example as given in the marking criteria, by actually getting to grips with the overall concept.              |
| <b>2 marks</b> | Explanation is <b>limited</b> . It is <b>generally accurate</b> but <b>less detailed</b> . For example, the candidate may not have indicated what behaviours are affected, or explain one type. |
| <b>1 mark</b>  | Explanation is <b>basic, lacking detail</b> , and may be <b>muddled</b> and/or <b>flawed</b> ., simply gives examples, i.e. more than one.  |
| <b>0 marks</b> | Explanation is <b>inappropriate</b> (for example, the candidate has described an ethical issue) or the explanation is <b>incorrect</b> .  |

(ii) The three forms of social influence that candidates are likely to offer are those from the specification, conformity (majority influence), minority influence and obedience. However, any other form of social influence would be acceptable. The explanation of the difference between them will depend on the two forms of social influence chosen. For example, conformity is where a larger group of people change the behaviour (but not necessarily the attitudes and beliefs) of an individual or smaller group while minority influence is where a small group or an individual change the behaviour and usually the beliefs of an individual. The difference is both in the size of the 'group' causing the influence and the type of change it creates in the individual (compliance or conversion).

For full marks the difference between the two must be made explicit.

**Marking allocation**

|                |  |
|----------------|--|
| <b>3 marks</b> | Explanation of the difference is both <b>accurate</b> and <b>detailed</b> . For example, in minority influence the change is usually due to conversion since the individual or group change both their belief and behaviours but in majority influence the change might be due to compliance or conversion.                  |
| <b>2 marks</b> | Explanation of the difference is <b>limited</b> . It is <b>generally accurate</b> but <b>less detailed</b> . For example, the candidate has described the two forms but the difference is only implicit or difference is stated but not elaborated. E.g. minority influence involves beliefs whereas, majority is behaviour. |
| <b>1 mark</b>  | The explanation of the difference is <b>basic, lacking detail</b> , and may be <b>muddled</b> and/or <b>flawed</b> , or simply a description of the two forms.   |
| <b>0 marks</b> | The explanation of the difference is <b>inappropriate</b> (for example, the candidate has outlined a study) or the explanation of the difference is <b>incorrect</b> .   |

(b) Outline the findings from **one** study of obedience to authority and give **one** criticism of this study. (3 marks + 3 marks)

### Marking criteria

There are several studies that may be offered, although it is likely that Milgram and Zimbardo are the most popular. Credit should only be given to an outline of the findings as opposed to, for example, conclusions. For example, some of Milgram's findings were that all participants gave at least 300 volts and that 65% gave the full amount of 450 volts. He also found that by moving location to a less prestigious environment that obedience fell to 47.5%. Candidates might also include findings that refer to the other variations. It is acceptable to regard all these variations as one study. It is also acceptable to credit findings that include a description of the participants' behaviour (sweating, nervous laughter, stress reactions etc)

The criticism will depend on the study chosen, but candidates could consider the lack of experimental validity, lack of ecological validity, ethical issues. The criticism can be positive or negative.

### Marking criteria for the findings

|                |  |
|----------------|--|
| <b>3 marks</b> | Outline description of the findings of one study of obedience is both <b>accurate</b> and <b>detailed</b> . For example, the candidate has included some of the details given in the marking criteria. |
| <b>2 marks</b> | Outline description of the findings of one study of obedience is <b>generally accurate</b> but <b>less detailed</b> . For example the candidate has only included one or two findings.                 |
| <b>1 mark</b>  | Outline description of the findings of one study of obedience is <b>basic, lacking detail</b> , and may be <b>muddled</b> and/or <b>flawed</b> .   |
| <b>0 marks</b> | Outline description is <b>inappropriate</b> (for example, the candidate may offer findings that do not relate to obedience) or the outline description is <b>incorrect</b> .                           |

### Marking allocation for the criticism

|                |  |
|----------------|--|
| <b>3 marks</b> | Statement of criticism of study of obedience is both <b>accurate</b> and <b>detailed</b> , demonstrating well-founded knowledge of one limitation or strength of the study. For example, the candidate has identified an appropriate criticism and explained in what way it is an issue in the context of the study. |
| <b>2 marks</b> | Statement of criticism of study of obedience is <b>generally accurate</b> but <b>less detailed</b> . For example, the candidate may fail to be clear about how the criticism is a problem in this study.   |
| <b>1 mark</b>  | Statement of criticism of study of obedience is <b>basic, lacking detail</b> , and may be <b>muddled</b> and/or <b>flawed</b> . For example, the candidate may simply identify the criticism.  |
| <b>0 marks</b> | Answer is <b>inappropriate</b> (for example, the candidate may offer criticism of a study that is not relevant) or the criticism, if directed at an appropriate study is <b>incorrect</b> .  |

- (c) “Most studies of majority influence have been carried out in laboratories and thus might not tell us much about the way people conform in the real world.”

Briefly outline findings from studies of majority influence (conformity) and consider the value of such studies. *(18 marks)*

**Marking criteria.**

**AO1** credit is given for an outline of findings from conformity research.

**AO2** credit is given for a consideration of the value of these findings.

Candidates may offer the findings from any study into conformity, the most likely being those identified on the specification, Asch, Sherif and Zimbardo. Although in order to receive credit, Zimbardo’s findings must relate to conformity and not to obedience. However, other studies of conformity are also relevant, such as Crutchfield and Jenness. Findings could include some of the following: Asch found that on 32% of the critical trials (when the confederates gave the wrong answer) naïve participants conformed. 74% of the naïve participants conformed at least once and 13 out of 50 participants never conformed. He also found that levels of conformity changed dependent on the presence of a non-unanimous majority, the size of the majority, the presence of a partner and the type of task. Zimbardo found that both the prisoners and the guards conformed to their roles, with the guards becoming more aggressive and the prisoners becoming passive.

The commentary comes from a consideration of the value of these findings. This could include a consideration of the internal and/or external validity of the research or of ethical issues. For example, one of the criticisms often made of Asch’s work is that it was unlike real life. That in the real world people do not find themselves in such a situation and thus the research does not tell us anything about conformity outside the laboratory. However, other studies of conformity in the real world have suggested that in fact people do conform to the majority, especially when they are uncertain how to behave (e.g. Furman and Duke 1988). In Zimbardo’s experiment, although it was a role-play, it clearly began to feel very real to the participants and in fact they conformed to their roles so well that the study was stopped after six days due to the stress experienced by the ‘prisoners’. Candidates could also consider examples of conformity in the real world and compare it with that found in research.

If only one study is offered, **AO1 = max 4 marks**, however candidate can still gain max **AO2 marks**.

**Marking allocation AO1**

|                  |  |
|------------------|--|
| <b>6-5 marks</b> | Outline of findings from conformity research is both <b>accurate</b> and <b>detailed</b> . For example, offering some of the findings as described in the marking criteria.  |
| <b>4-3 marks</b> | Outline of findings from conformity research is <b>limited</b> . It is <b>generally accurate</b> and/or <b>less detailed</b> . For example, offering some of the findings as described in the marking criteria but in a less detailed way, or the findings from one study are described in detail. |
| <b>2-1 marks</b> | Outline of findings from conformity research is <b>basic, lacking detail</b> , and may be <b>muddled</b> and/or <b>flawed</b> .  |
| <b>0 marks</b>   | Outline of findings from conformity research is <b>inappropriate</b> (for example, the candidate may outline findings from obedience research) or the description is <b>incorrect</b> .  |

**Marking allocation AO2**

|                    |   |
|--------------------|---|
| <b>12-11 marks</b> | There is an <b>informed commentary</b> on a consideration the value of the findings and <b>reasonably thorough analysis</b> of relevant psychological material, which has been used in an <b>effective manner</b> , within the time constraints of answering this part of the question. |
| <b>10-9 marks</b>  | There is a <b>reasonable commentary</b> on a consideration of the value of the findings and <b>slightly limited analysis</b> of relevant psychological material, which has been used in an <b>effective manner</b> .  |
| <b>8-7 marks</b>   | There is a <b>reasonable commentary</b> on a consideration of the value of the findings but <b>limited analysis</b> of relevant psychological material, which has been used in a <b>reasonably effective manner</b> .   |
| <b>6-5 marks</b>   | There is a <b>basic commentary</b> on a consideration of the value of the findings with <b>limited analysis</b> of relevant psychological material, which has been used in a <b>reasonably effective manner</b> .   |
| <b>4-3 marks</b>   | There is <b>superficial commentary</b> on a consideration of the value of the findings and <b>rudimentary analysis</b> of relevant psychological material. There is <b>minimal interpretation</b> of the material used.   |
| <b>2-1 marks</b>   | Commentary on a consideration of the value of the findings is <b>just discernible</b> (for example, through appropriate selection of material). Analysis is <b>weak</b> and <b>muddled</b> . The answer may be <b>mainly irrelevant</b> to the problem it addresses.                    |
| <b>0 marks</b>     | Commentary is absent or <b>wholly irrelevant</b> to the problem it addresses.   |

2

**Total for this question: 30 marks**

(a) Explain what is meant by the terms:

(i) experimental validity;

(ii) ecological validity.

*(3 marks + 3 marks)***Marking criteria**

Experimental validity is concerned with whether an observed effect is due to experimental manipulation, i.e. is it really due to the effect the IV has on the DV, or is it due to some other variable? In Milgram's studies on obedience any conclusions reached would have been invalid if his participants did not believe that the shocks they were giving were real.

Ecological validity refers to whether or not the results can be applied to other situations. It is concerned with whether the results can be generalised to situations beyond the research situation. Field experiments are often considered to have high ecological validity because they take place in the real world. This is not always true, for example Hofling et al's study might only relate to obedience between doctors and nurses and not to everyday obedience.

Population validity is not a subset of ecological validity and does not gain credit.

**Marking allocation for each term**

|         |   |
|---------|---|
| 3 marks | Explanation of each term is <b>both accurate and detailed</b> . For example, the candidate has referred to some of the material given in the marking criteria.                        |
| 2 marks | Explanation is <b>limited</b> . It is <b>generally accurate but less detailed</b> . For example, the candidate may only briefly refer to some of the material in the marking criteria |
| 1 mark  | Explanation is <b>basic, lacking detail</b> , and may be <b>muddled and/or flawed</b> .   |
| 0 marks | Explanation is <b>inappropriate</b> (for example, the candidate explains an ethical issue) or the explanation is <b>incorrect</b> .   |



|   |                  |
|---|------------------|
| (b) Describe the aims and procedures of <b>one</b> study of minority influence. | <i>(6 marks)</i> |
|---|------------------|

**Marking criteria**

The most likely study to be offered is one by Moscovici *et al* (1969), but any study of minority influence is acceptable. However, credit will only be given to a description of the aims and procedures. Moscovici's aim was to find out whether a minority could influence a majority and to discover what conditions were necessary for this to happen. The procedure, in one of his studies (1969), involved groups of six participants, two of whom were confederates (the minority). The task was to describe the colour of 36 slides, all of which were blue but of varying degrees of brightness. The procedures involved three conditions, a consistent minority, an inconsistent minority and a control condition with no minority.

**Marking allocation.**

|           |  |
|-----------|--|
| 6-5 marks | Description of the aims <i>and</i> procedures of a study of minority influence is <b>both accurate and detailed</b> . For example, the candidate has covered aims and procedures but not necessarily in the same amount of detail.   |
| 4-3 marks | Description of the aims <i>and</i> procedures of a study of minority influence is <b>limited</b> . It is <b>generally accurate but less detailed</b> . Alternatively, description of <i>either</i> the aims <i>or</i> procedures of the study is accurate and detailed.                    |
| 2-1 marks | Description of the aims <i>and</i> procedures of a study of minority influence is <b>basic, lacking detail</b> , and may be <b>muddled and/or flawed</b> . Alternatively, description of <i>either</i> the aims <i>or</i> procedures of the study is generally accurate but less detailed. |
| 0 marks   | The description of the aims or procedures is <b>inappropriate</b> (for example, the candidate has described a study which was not concerned with minority influence) or the description is <b>incorrect</b> .  |

(c) Outline and evaluate ways in which psychologists have dealt with ethical issues raised in social influence research. (18 marks)

### Marking criteria

**AO1** credit should be given for an outline of ways in which psychologists have dealt with ethical issues.

**AO2** credit should be given for an assessment as the extent that psychologists have been successful in resolving these issues.

No credit is given for a description of issues.

This question asks candidates to consider some of the ways ethical issues have been dealt with in social influence research. The broader application of social influence research can also receive credit. One way candidates could approach this question is by offering more specific issues and showing how psychologists have dealt with them (e.g. if they cannot gain informed consent due to deception then they could gain presumptive consent, however, this in turn has limitations). Other ways of dealing with ethical issues include the use of Ethical Committees and the role of punishment.

The commentary could come from considering the advantages or limitations of ethical guidelines such as those developed by the British Psychological Society (e.g. who exactly is governed but the guidelines, difficulties of enforcing the guidelines). Another way of evaluating how issues have been dealt with is to consider the value of the research itself. As Aronson points out, sometimes it is even more unethical not to conduct research rather than to be constrained by the ethical guidelines. They might assess the advantages or limitation of ethical guidelines (such as problems of determining costs and benefits, difficulties of knowing who is governed by these guidelines, etc) or by considering that other important issues are not addressed by these guidelines. (The idea of social sensitivity is not dealt with by the guidelines.) Commentary must be linked to ways in which ethical issues have been dealt with.

### Marking allocation AO1

|                  |   |
|------------------|---|
| <b>6-5 marks</b> | Outline of ways in which psychologists have dealt with ethical issues is both <b>accurate</b> and <b>detailed</b> . For example, the candidate has outlined how a psychologist could obtain prior general consent when it would not be possible to obtain informed consent, considered the use of role play and debriefing. |
| <b>4-3 marks</b> | Outline of ways in which psychologists have dealt with ethical issues is <b>limited</b> . It is <b>generally accurate</b> and/or <b>less detailed</b> . For example, the candidate has only briefly offered several ways of dealing with ethical issues.  |
| <b>2-1 marks</b> | Outline of ways in which psychologists have dealt with ethical issues is <b>basic</b> , <b>lacking detail</b> , and may be <b>muddled</b> and/or <b>flawed</b> . For example, the candidate has only offered an outline of ways of dealing with an ethical issue  |
| <b>0 marks</b>   | Outline of ways in which psychologists have dealt with ethical issues is <b>inappropriate</b> (for example, the candidate may offer issues that are not ethical ones) or the outline is <b>incorrect</b> .  |

**Marking allocation AO2**

|                    |  |
|--------------------|--|
| <b>12-11 marks</b> | There is an <b>informed commentary</b> on how psychologists have dealt with ethical issues and <b>reasonably thorough analysis</b> of relevant psychological material, which has been used in an <b>effective manner</b> , within the time constraints of answering this part of the question. |
| <b>10-9 marks</b>  | There is a <b>reasonable commentary</b> on how psychologists have dealt with ethical issues and <b>slightly limited analysis</b> of relevant psychological material, which has been used in an <b>effective manner</b> .   |
| <b>8-7 marks</b>   | There is a <b>reasonable commentary</b> on how psychologists have dealt with ethical issues but <b>limited analysis</b> of relevant psychological material, which has been used in a <b>reasonably effective manner</b> .  |
| <b>6-5 marks</b>   | There is a <b>basic commentary</b> on how psychologists have dealt with ethical issues with <b>limited analysis</b> of relevant psychological material, which has been used in a <b>reasonably effective manner</b> .  |
| <b>4-3 marks</b>   | There is <b>superficial commentary</b> on how psychologists have dealt with ethical issues and <b>rudimentary analysis</b> of relevant psychological material. There is <b>minimal interpretation</b> of the material used.  |
| <b>2-1 marks</b>   | Commentary on how psychologists have dealt with ethical issues is <b>just discernible</b> (for example, through appropriate selection of material). Analysis is <b>weak</b> and <b>muddled</b> . The answer may be <b>mainly irrelevant</b> to the problem it addresses.                       |
| <b>0 marks</b>     | Commentary is absent or <b>wholly irrelevant</b> to the problem it addresses.  |

**SECTION B – RESEARCH METHODS****3****Total for this question: 30 marks**

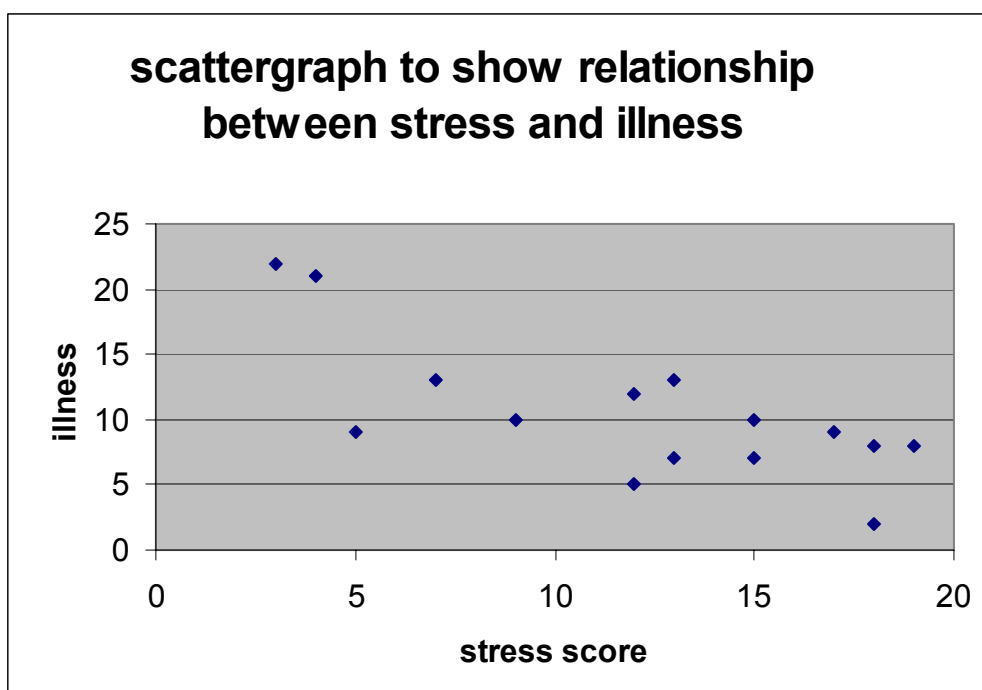
As part of their coursework, a small group of AS Level Psychology students decided to examine the relationship between stress and physical illness. They designed a scale to measure stress using a list of 20 life events (e.g. exams, driving test, end of a relationship). After getting permission from their Head Teacher and the participants' parents to conduct the study, they obtained a random sample of 15 students from the 6<sup>th</sup> form.

They asked the participants to tick any of the life events that they had experienced in the past two years. This was used to establish a stress score between 0 and 20. On this scale a high score indicates a lot of stress. After each participant had completed the stress scale, they were asked how many days they had taken off school through illness that year.

Previous research had led the Psychology students to expect a positive correlation between stress and illness.

The results are shown on the scattergraph below.

The correlation coefficient was  $-0.734$



**Mark scheme for Question 3:** Where the word one appears in a question positive marking does **not** apply and only the first answer is credited.

(a) How were the variables “stress” and “illness” operationalised by the students who designed the study? *(2 marks + 2 marks)*

**Marking criteria**

To operationalise a variable means that it is explained in such a way that it can be measured. Stress, in this study, has been measured by a stress scale of 20 life events that the students had designed themselves. Illness has been measured in terms of the number of days a student has off sick from school.

**For each variable:**

|                |   |
|----------------|---|
| <b>2 marks</b> | Explanation of each variable is both <b>accurate</b> and <b>detailed</b> . For example stress is operationalised by the score obtained on a stress scale of life events designed by the students. |
| <b>1 mark</b>  | Explanation of each term is <b>basic</b> , <b>lacking detail</b> , and may be <b>muddled</b> and/or <b>flawed</b> . For example, merely stating stress score.                                     |
| <b>0 marks</b> | Explanation of each term is <b>inappropriate</b> (for example, the candidate may describe the statistical method used to analyse the data) or the explanation is <b>incorrect</b> .               |

|  |           |
|--|-----------|
| (b) (i) What is meant by investigator effects?                                 | (1 mark)  |
| (ii) Give an example of <b>one</b> possible investigator effect in this study. | (2 marks) |
| (iii) Describe how this investigator effect might be overcome in this study.   | (2 marks) |

**Marking criteria**

(i) Investigator effects (or experimenter effects) are the effects the investigator has on the participants behaviour. These can include the investigator's expectations, personal characteristics, and behaviour, anything that might affect the behaviour of the participants and thus the findings. This does not have to be in context.

**For the explanation of investigator effects:**

|                |   |
|----------------|---|
| <b>1 mark</b>  | Explanation of investigator effects is <b>appropriate</b> .                                 |
| <b>0 marks</b> | No appropriate explanation of investigator effects or the explanation is <b>incorrect</b> . |

(ii) Candidates have a wide range of effects to choose from, but for two marks it must be clearly located within the context of this study.

**For the investigator effect:**

|                |   |
|----------------|---|
| <b>2 marks</b> | The example is both <b>accurate</b> and <b>detailed</b> . For example, an investigator effect in this study could involve the way in which the students ask their participants how many days they had off sick. If they do so in a rude and off hand way then the answers they receive might not be honest. |
| <b>1 mark</b>  | Explanation of the effect is <b>basic</b> , <b>lacking detail</b> , and may be <b>muddled</b> and/or <b>flawed</b> or lacks context. For example, if they know the investigator.  |
| <b>0 marks</b> | Explanation of the effect is <b>inappropriate</b> (for example, the candidate may describe something other than an investigator effect) or the explanation is <b>incorrect</b> .  |

(iii) The way the investigator effect is overcome will depend on the effect itself. To attract full marks the answer must overcome the effect identified in (ii) and be contextualised.

**For the way of overcoming the effect**

|                |  |
|----------------|--|
| <b>2 marks</b> | Description of how to overcome the effect is both <b>accurate</b> and <b>detailed</b> . For example, the investigator will speak to all the participants in the same friendly mood by using a script when asking them how many days they had off sick. |
| <b>1 mark</b>  | Description of how to overcome the effect is <b>basic</b> , <b>lacking detail</b> , and may be <b>muddled</b> and/or <b>flawed</b> or lacks context. For example, treat all participants in the same way.  |
| <b>0 marks</b> | Description of how to overcome the effect is <b>inappropriate</b> (for example, the candidate may describe an ethical issue) or the explanation is <b>incorrect</b> .  |

|  |                     |
|--|---------------------|
| (c) (i) What is meant by the term correlation coefficient?   | (2 marks)           |
| (ii) Using the information from the scattergraph <b>and/or</b> correlation coefficient, describe the relationship between stress and illness that the researchers found in this study. | (2 marks)           |
| (iii) Give <b>one</b> advantage and <b>one</b> disadvantage of an investigation using a correlational analysis.  | (2 marks + 2 marks) |

AO1 = 2, AO2 = 4, AO3 = 2

### Marking criteria

(i) A correlation coefficient is a number that reflects the degree of correlation; it indicates the degree to which two sets of scores are related. It will always be somewhere between  $-1$  and  $+1$ .

Note, no need for answer to be within context.

|                |   |
|----------------|---|
| <b>2 marks</b> | Explanation of a correlation coefficient is both <b>accurate</b> and <b>detailed</b> . For example, some of the material given above.   |
| <b>1 mark</b>  | Explanation of a correlation coefficient is <b>basic</b> , <b>lacking detail</b> , and may be <b>muddled</b> and/or <b>flawed</b> . For example, a muddled answer or one bit of the material above. |
| <b>0 marks</b> | Explanation of a correlation coefficient is <b>inappropriate</b> or the explanation is <b>incorrect</b> .   |

(ii) The scattergraph and/or correlation coefficient shows that there is a *negative* relationship/correlation between stress and illness, as one score increases the other decreases. A high score on the stress scale is correlated with a low illness score (few days off sick). The magnitude of the correlation coefficient (and the closeness of the plotted points) indicates this is a strong relationship. (A candidate would not need to include all these points to achieve full marks.)

**NB:** don't take the first answer as there could be more than one relationship described.

|                |   |
|----------------|---|
| <b>2 marks</b> | Explanation of the relationship is both <b>accurate</b> and <b>detailed</b> . For example, it shows a negative correlation between stress and illness and it is quite a strong correlation .734 is close to 1.                      |
| <b>1 mark</b>  | Explanation of the relationship is <b>basic</b> , <b>lacking detail</b> , and may be <b>muddled</b> and/or <b>flawed</b> . For example, only one part of the material above is used in the answer. Just state negative correlation. |
| <b>0 marks</b> | Explanation of the relationship is <b>inappropriate</b> or the explanation is <b>incorrect</b> .  |

**(iii)**

An advantage of a correlational analysis:

- Can provide very useful information on the strength of the relationship between two variables.
- Can be very useful as an exploratory tool for research.
- Can investigate a relationship that already exists without having to manipulate any variables.
- Can be used to suggest further areas of investigation.

A disadvantage of a correlational analysis:

- It is impossible to determine cause and effect = 2 marks
- There may seem to be a relationship but it may be due to a third variable, or there may be no relationship at all.
- Non-linear relationships may be hidden by correlation coefficients.

Note that neither the advantage nor disadvantage needs to be located within the context of this study.

For both the advantage/disadvantage:

|                |   |
|----------------|---|
| <b>2 marks</b> | The advantage/disadvantage is both <b>accurate</b> and <b>detailed</b> . For example as given above.  |
| <b>1 mark</b>  | The advantage/disadvantage is <b>basic</b> , <b>lacking detail</b> , and may be <b>muddled</b> and/or <b>flawed</b> . For example, only a brief version of one of the advantages/disadvantages given above is offered, e.g. could apply to other methods as well. |
| <b>0 marks</b> | The advantage/disadvantage is <b>inappropriate</b> (for example, the candidate may describe a correlation rather than an advantage) or the explanation is <b>incorrect</b> .  |



- |   |           |
|---|-----------|
| (d) (i) Explain how the students might have selected their random sample. | (2 marks) |
| (ii) Give <b>one</b> limitation of random sampling.                       | (2 marks) |

AO3 + AO2

**Marking criteria**

(i) A random sample is one where everyone in the target population has an equal chance of being chosen. In this study the students might have obtained a list of names of all the students in their 6<sup>th</sup> form and having placed the names in a hat, drawn out 15. Only the explanation of the process is creditworthy, not the definition.

|                |   |
|----------------|---|
| <b>2 marks</b> | Explanation of how the sample might have been selected is both <b>accurate</b> and <b>detailed</b> . For example as given above.  |
| <b>1 mark</b>  | Explanation of how the sample might have been selected is <b>basic, lacking detail</b> , and may be <b>muddled</b> and/or <b>flawed</b> or lacks context. For example, put the names of all the 6 <sup>th</sup> Form students in a hat. |
| <b>0 marks</b> | Explanation of how the sample might have been selected is <b>inappropriate</b> (for example, the candidate may describe an alternative method) or the explanation is <b>incorrect</b> .   |

(ii) A limitation of using a random sample is that it does not guarantee a completely representative sample.

Also it is possible that only one ‘type’ of participant is selected, although unlikely it is still statistically possible, especially with a small sample of 15. It is also difficult to obtain a truly random sample unless all the names of the target population are known.

Note that this answer does not need to be within the context of the study.

|                |  |
|----------------|--|
| <b>2 marks</b> | The limitation is both <b>accurate</b> and <b>detailed</b> . For example, some of the material given above.  |
| <b>1 mark</b>  | The limitation is <b>basic, lacking detail</b> , and may be <b>muddled</b> and/or <b>flawed</b> . For example, difficult to get a truly random sample. |
| <b>0 marks</b> | The limitation is <b>inappropriate</b> (for example, the candidate may describe a strength) or the explanation is <b>incorrect</b> .                   |

|  |           |
|--|-----------|
| (e) Although the students correctly obtained permission from their Head Teacher and the participants' parents, |           |
| (i) identify <b>one</b> ethical issue that they do not seem to have considered.                                | (1 mark)  |
| (ii) Explain how the researchers could have dealt with this ethical issue.                                     | (2 marks) |

AO3

**Marking criteria****(i)** Possible ethical issues that are relevant in this study include:

- Informed consent from participants – the participants need to be given sufficient information about the study in order that they can decide whether or not to take part. Some students might not want others to know how stressed they are, or how many days they have had off school!
- Confidentiality – participants have the right to expect that their results will remain anonymous. They might not want teachers to know about all their absences.
- Right to withdraw – they need to know that they can withdraw at any time and take their data with them.
- Protection from psychological harm – participants might become concerned if they have a high stress score.

**(ii)** Since the students have already obtained permission from their Head Teacher, the requirement for parental permission is not a real ethical issue, especially as these are 6<sup>th</sup> form students, and will not receive credit, since the researchers *have* already considered this. Candidates must explain how they would *deal* with the ethical issue, that is, what they would do. It is not sufficient to merely describe the issue itself.

**For the ethical issue:**

|                |  |
|----------------|--|
| <b>1 mark</b>  | Identification of the ethical issue is <b>appropriate</b>  |
| <b>0 marks</b> | No appropriate identification of an ethical issue or the identification is <b>incorrect</b> (e.g. debriefing). |

**For dealing with the ethical issue:**

|                |   |
|----------------|---|
| <b>2 marks</b> | The explanation of how the ethical issue is dealt with is both <b>accurate</b> and <b>detailed</b> . For example the ethical issue of confidentiality will be dealt with by making sure that none of the participants write their names on the stress scale so that there is no way any individual can be identified. |
| <b>1 mark</b>  | The explanation of how the ethical issue is dealt with is <b>basic</b> , <b>lacking detail</b> , and may be <b>muddled</b> and/or <b>flawed</b> . For example, to deal with informed consent: tell the participants what its about.   |
| <b>0 marks</b> | The explanation of how the ethical issue is dealt with is <b>inappropriate</b> (for example, the candidate may describe what is meant by informed consent) or the explanation is <b>incorrect</b> .   |

- (f) Due to the unexpected nature of the findings, the students felt it would be useful to gather some qualitative data about the participants' experience of stress and illness.
- (i) Explain how they could obtain such qualitative data about participants' experiences. (3 marks)
- (ii) Outline how they could analyse the data collected. (3 marks)

### Marking criteria

The most likely qualitative research methods are those on the specification: naturalistic observations, questionnaire surveys and interviews, since these would allow the researchers to find out more about their participants' experiences. For example, candidates could outline how they would go about conducting an interview. An interview would allow the participants to describe, in their own words, how they felt, why they were stressed etc. Other methods that would generate qualitative data are also acceptable (e.g. case study, diary method, discourse analysis).

Qualitative data can be analysed by looking for trends, putting the data into categories, content analysis and by being converted into quantitative data.

### For the explanation:

|                |   |
|----------------|---|
| <b>3 marks</b> | Explanation of how they could obtain qualitative data is both <b>accurate</b> and <b>detailed</b> . For example, the candidate could outline how an interview would be conducted, e.g. structured or unstructured and what type of questions would be asked or context..        |
| <b>2 marks</b> | Explanation of how they could obtain qualitative data is <b>limited</b> . It is <b>generally accurate</b> but <b>less detailed</b> . For example, the candidate may explain how they would conduct an interview, but not necessarily the type of questions that would be asked. |
| <b>1 mark</b>  | Explanation is <b>basic, lacking detail</b> , and may be <b>muddled</b> and/or <b>flawed</b> . For example the candidate merely indicates the method to be used.  |
| <b>0 marks</b> | Explanation is <b>inappropriate</b> (for example, the candidate describes an experimental method) or the explanation is <b>incorrect</b> .  |

### For the analysis of data:

|                |   |
|----------------|---|
| <b>3 marks</b> | The outline of how qualitative data would be analysed is both <b>accurate</b> and <b>detailed</b> . For example, the candidate explains how the data would be sorted into categories and suggests some of the possible categories.                                |
| <b>2 marks</b> | The outline of how qualitative data would be analysed analysis is <b>limited</b> . It is <b>generally accurate</b> but <b>less detailed</b> . For example, the candidate may state that the data would be converted into quantitative data (but not explain how). |
| <b>1 mark</b>  | The outline of how qualitative data would be analysed is <b>basic, lacking detail</b> , and may be <b>muddled</b> and/or <b>flawed</b> .  |
| <b>0 marks</b> | The outline of how qualitative data would be analysed is <b>inappropriate</b> (for example, the candidate describes what qualitative data is) or the explanation is <b>incorrect</b> .  |

**ASSESSMENT GRID: June 2004**

| <b>Question</b>             | <b>Part</b> | <b>AO1</b> | <b>AO2</b> | <b>AO3</b> |
|-----------------------------|-------------|------------|------------|------------|
| 1                           | (a)         | 6          |            |            |
|                             | (b)         | 6          |            |            |
|                             | (c)         | 6          | 12         |            |
| <b>Total for Question 1</b> |             | <b>18</b>  | <b>12</b>  |            |
| 2                           | (a)         | 6          |            |            |
|                             | (b)         | 6          |            |            |
|                             | (c)         | 6          | 12         |            |
| <b>Total for Question 2</b> |             | <b>18</b>  | <b>12</b>  |            |
| 3                           | (a)         |            |            | 4          |
|                             | (b)         | 1          |            | 4          |
|                             | (c)         | 2          | 4          | 2          |
|                             | (d)         |            | 2          | 2          |
|                             | (e)         |            |            | 3          |
|                             | (f)         |            |            | 6          |
| <b>Total for Question 3</b> |             | <b>3</b>   | <b>6</b>   | <b>21</b>  |
|                             |             |            |            |            |
| QoWC                        |             | 2          |            |            |
|                             |             |            |            |            |
| <b>Total for unit</b>       |             | <b>39</b>  | <b>30</b>  | <b>21</b>  |