General Certificate of Education January 2003 Advanced Level Examination

# PYB5



# PSYCHOLOGY (SPECIFICATION B) Unit 5 Perspectives, Debates and Methods in Psychology

Monday 27 January 2003 1.30 pm to 3.30 pm

In addition to this paper you will require: a 16-page answer book. You may use a calculator.

Time allowed: 2 hours

### Instructions

- Use blue or black ink or ball-point pen.
- Write the information required on the front of your answer book. The *Examining Body* for this paper is AQA. The *Paper Reference* is PYB5.
- Answer three questions.
- Answer one question from Section A, one question from Section B and the compulsory question in Section C.
- Do all rough work in the answer book. Cross through any work you do not want marked.

#### Information

- The maximum mark for this paper is 60.
- Mark allocations are shown in brackets.
- Questions carrying 12 marks should be answered in continuous prose. Quality of written communication will be assessed in these answers.
- In answers to questions carrying 12 marks, you will be assessed on your ability to use an appropriate form and style of writing, to organise relevant information clearly and coherently, and to use specialist vocabulary, where appropriate. The degree of legibility of your handwriting and the level of accuracy of your spelling, punctuation and grammar will also be taken into account.

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## SECTION A: PERSPECTIVES IN PSYCHOLOGY

Answer one question from this Section.

Each question carries 20 marks.

1 (a) Alex is a seven-year-old pupil. When she worked quietly at her desk, the teacher paid her no attention. The first time Alex threw a pencil at another child, the teacher walked over to her and told her off. On several other occasions Alex has thrown things at other children and each time the teacher has told her off. Alex now frequently throws things at other children.

Outline what is meant by *operant conditioning* and suggest how it could be used to explain why Alex now throws things at other children. (4 marks)

- (b) Identify and briefly explain **two** similarities between human cognition and the way computers process information. (4 marks)
- (c) Describe and discuss **at least one** strength and **at least one** weakness of the cognitive perspective in psychology. Refer to **another** perspective in your answer. (12 marks)
- 2 (a) Identify and explain one similarity between the theories of Rogers and Maslow. (4 marks)
  - (b) A young woman known as "Anna O" suffered from paralysis in her right arm for which there was no physical explanation. Freud believed that the cause of the paralysis was a repressed memory and described the case as follows:

Anna had nursed her father through a serious illness. Late one night she was sitting with him and, in her tired state, she thought she "saw" a large black snake about to bite her father. She tried to prevent this but could not move her right arm which had "gone to sleep". When this event was identified in therapy, the paralysis disappeared.

Outline what Freud meant by the term *defence mechanism* and explain how this concept is illustrated in the case study above. (4 marks)

(c) Two students were discussing the psychoanalytic perspective.

One said, "The psychoanalytic perspective has too many limitations to have made any real contribution to psychology."

The other replied, "I disagree. There are many ways the psychoanalytic perspective has contributed to our understanding of behaviour."

Describe and discuss contributions of the psychoanalytic perspective to understanding human behaviour. In your answer, refer to **at least two** topics in psychology that you have studied. (12 marks)

### SECTION B: DEBATES IN PSYCHOLOGY

Answer one question from this Section.

Each question carries 20 marks.

- 3 (a) One feature of the scientific approach is hypothesis testing.
  - (i) Outline what is meant by *hypothesis testing* and explain its role in scientific research. (4 marks)
  - (ii) Identify and outline **two other** features of the scientific approach in psychology. (4 marks)
  - (b) "It is not always appropriate to use the scientific approach to study behaviour."

Discuss limitations of the scientific approach in psychology. Illustrate your answer with reference to **at least two** topics you have studied. (12 marks)

- 4 (a) Using an example from psychology, explain what is meant by *reductionism*. (4 marks)
  - (b) Identify and describe one limitation of reductionism in psychology. (4 marks)
  - (c) "A balance between nomothetic and idiographic approaches is needed for a complete study of psychology."

Discuss this statement with reference to at least one topic area in psychology. (12 marks)

#### TURN OVER FOR THE NEXT SECTION

# SECTION C: METHODS IN PSYCHOLOGY

Answer all parts of this question.

5 A psychologist believed that, the more knowledge people had about football, the better they would be at remembering a new set of football results.

She decided to carry out an investigation to test the hypothesis that "recall of football results is positively correlated with performance in a football knowledge questionnaire".

Ten students took part in the study. The students were given two tests. They were first given a questionnaire which assessed their knowledge of football. The questions varied in difficulty.

Later they were given a test of their ability to recall a set of football results. The test took place on a Saturday afternoon and the participants were asked to make sure they did not hear about any football results on that day. The participants came to a classroom and listened to the results of 64 matches on the radio. Immediately afterwards they were asked to write down as many of the results as they could remember on a sheet listing the fixtures. Each result was marked as correct if both teams' scores were remembered correctly.

The psychologist correlated the scores from the football knowledge questionnaire with the scores from the memory test.

| Participant | Football knowledge<br>questionnaire score | Number of football results correctly recalled |
|-------------|---|---|
| 1           | 15  | 33  |
| 2           | 7   | 15  |
| 3           | 10  | 18  |
| 4           | 18  | 27  |
| 5           | 27  | 60  |
| 6           | 21  | 45  |
| 7           | 14  | 30  |
| 8           | 19  | 6   |
| 9           | 26  | 47  |
| 10          | 11  | 22  |

The results are presented in Table 1.

Table 1
 Performance in football knowledge questionnaire and recall of football results

- (a) Draw a rough sketch to display the correlation between scores on the football knowledge questionnaire and recall scores. Label the sketch appropriately. (3 marks)
- (b) State an appropriate null hypothesis for this study. (2 marks)
- (c) The psychologist did not believe that she could use a parametric statistical test on the data she had collected.
  - (i) State two conditions which need to be met for her to use a parametric test. (2 marks)
  - (ii) Name a non-parametric test which could be used to calculate a correlation coefficient using the data from this study. (1 mark)
- (d) Explain what is meant by a *Type I error*. (2 marks)
- (e) The psychologist avoided using questions which were all easy or all difficult in the questionnaire. Explain why this might have been important. (2 marks)
- (f) Describe one way of measuring the reliability of this questionnaire. (3 marks)
- (g) One participant in the study performed exceptionally well on the recall of football results. It was decided to conduct a case study using this participant.
  - (i) Briefly describe how the psychologist might have carried out the case study.

(2 marks)

(ii) Discuss what could be gained from the case study that could not be gained from the correlational study above. (3 marks)

#### END OF QUESTIONS