



General Certificate of Education  
Advanced Level Examination  
June 2011

# Psychology (Specification A) PSYA4

## Unit 4 Psychopathology, Psychology in Action and Research Methods

Tuesday 21 June 2011 9.00 am to 11.00 am

**For this paper you must have:**

- an AQA 16-page answer book.

### Time allowed

- 2 hours

### Instructions

- Use black ink or black 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 PSYA4.
- In **Section A**, choose **one** topic. Answer **all** questions on the topic you choose. Where appropriate, refer to theories and/or studies.
- In **Section B**, choose **one** topic. Answer **all** questions on the topic you choose. Where appropriate, refer to theories and/or studies, approaches, issues and debates.
- In **Section C**, you should answer **all** questions.
- Do all rough work in the answer book. Cross through any work you do not want to be marked.

### Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 85.
- In **Section A** and in **Section B**, you will be marked on your ability to:
  - use good English
  - organise information clearly
  - use specialist vocabulary where appropriate.

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## Section A Psychopathology

Choose **one** topic from **Section A**. Answer **all** questions on the topic you choose.

Each topic carries 25 marks.

Where appropriate, refer to theories and/or studies.

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### Topic: Schizophrenia

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**0 | 1** 'There is considerable evidence that schizophrenia is caused by biological factors. These can be genetic, neuroanatomical, biochemical, viral or a combination of such factors.'

Discuss biological explanations of schizophrenia. *(9 marks + 16 marks)*

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### Topic: Depression

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**0 | 2** Discuss biological therapies for depression. *(9 marks + 16 marks)*

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### Topic: Anxiety Disorders

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**0 | 3** Outline and evaluate **one or more** biological explanations for **either** phobic disorders **or** obsessive compulsive disorder. *(4 marks + 8 marks)*

**0 | 4** Discuss **one or more** psychological explanations for **either** phobic disorders **or** obsessive compulsive disorder. *(5 marks + 8 marks)*

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**Section B Psychology in Action**

Choose **one** topic from **Section B**. Answer **all** questions on the topic you choose.

Each topic carries 25 marks.

Where appropriate, refer to theories and/or studies, approaches, issues and debates.

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**Topic: Media Psychology**

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- 0 5** A local school head teacher wants to produce a leaflet for parents about the possible effects of video games and computers on young people. Suggest what information should be included in the leaflet. Use your knowledge of psychological research in this area to justify your advice. *(10 marks)*
- 0 6** Outline the Hovland-Yale model of persuasion. *(5 marks)*
- 0 7** Outline and evaluate findings of research into intense fandom. *(4 marks + 6 marks)*

**Section B continues on the next page**

**Turn over ►**

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**Topic: The Psychology of Addictive Behaviour**

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**0 8** Outline the learning model of addiction. *(5 marks)*

**0 9** Explain how self-esteem can influence vulnerability to addiction. *(4 marks)*

A study into the effects of warnings on cigarette packets has found that these vary depending on the reason why people smoke in the first place. College students were given questionnaires to assess whether self-esteem played a role in their motivation to smoke. They were then shown cigarette packets with either death-related warnings (eg 'smokers die young') or death-neutral warnings (eg 'smoking makes you unattractive'). Students, for whom smoking was important to their self-esteem, were not put off by warnings of death on cigarette packets. Surprisingly, their attitude to smoking became more positive after being shown such messages. However, warnings related to the source of their self-esteem, (eg 'smoking makes you unattractive'), significantly reduced positive attitudes to smoking in this group.

The questionnaires consisted of statements such as 'Smoking makes me feel valued' and students had to indicate in a tick box the extent to which they agreed/disagreed with each statement.

**1 0** Suggest **one** other possible statement that could have been used to assess the role of self-esteem. State whether this kind of data is qualitative or quantitative. *(2 marks)*

**1 1** Explain **one** strength and **one** limitation of using a questionnaire in this study. *(2 marks + 2 marks)*

**1 2** Using the findings from this study and other psychological research, discuss the effectiveness of different types of intervention. *(10 marks)*

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**Topic: Anomalistic Psychology**

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- 1 | 3** Explain issues surrounding scientific fraud in the study of anomalous experience. *(5 marks)*
- 1 | 4** Leon wore a green T-shirt when he sat a mock GCSE exam and got an unexpectedly good result. Since then he has always worn the same T-shirt when he has had to sit an exam. This morning he is feeling distressed because he cannot find his T-shirt and he has an A-level psychology exam today.
- How might a psychologist explain Leon's superstitious behaviour? *(5 marks)*
- 1 | 5** Abbie, Leon's friend, cannot understand why he is so upset. She has worked hard and revised thoroughly and does not feel that she needs a T-shirt or anything else to get her through the exam.
- Suggest how personality and/or cognitive factors might explain why Abbie does not have anomalous beliefs. *(5 marks)*
- 1 | 6** Discuss what research into exceptional experience has shown us about out-of-body experience. *(4 marks + 6 marks)*

**Turn over for the next section**

**Turn over ►**

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## Section C Psychological Research and Scientific Method

Answer **all** questions in this section.

This topic carries 35 marks.

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### Topic: Psychological Research and Scientific Method

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It is thought that colours might affect our performance when carrying out certain tasks. Research in this area has been inconclusive. Some studies have shown that red improves performance but others have found the opposite. It could be that these contradictory results have arisen because red is beneficial only for certain kinds of mental processing. Some psychologists tested this hypothesis in a series of independent-groups design experiments using students at a Canadian university.

The experiments involved computer tasks, with either a red, blue or neutral background appearing on the monitor. The researchers found that participants were better at a word-recall task and a spell-checking task when the screen background was red rather than blue or neutral. However, participants thought of more creative ideas when the screen was blue rather than red or neutral.

The researchers concluded that red is beneficial for tasks that require attention to detail whereas blue aids creativity.

1	7
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 What were the researchers' aims in this study? (2 marks)

Imagine that you are writing up the report for this series of experiments.

1	8
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 What is the purpose of the introduction section of a report? (2 marks)

A psychological report also contains a discussion section. Researchers are expected to consider their findings critically and discuss issues such as validity.

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 What is meant by validity? (1 mark)

2	0
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 Explain how **one** factor in this study might affect its internal validity and how **one** factor might affect its external validity. (2 marks + 2 marks)

2	1
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 In the discussion section, researchers are also expected to consider any possible applications of their research. Suggest **one** practical application that might arise from these findings. (2 marks)

In a further experiment, participants were given 20 blue shapes or 20 red shapes. They were then asked to pick 5 shapes and use them to make a toy suitable for a child aged between five and eleven years. They were given a limited time to carry out this task. Participants given red shapes made toys that independent judges rated to be more practical but less original, whereas participants given blue shapes made more creative toys.

2	2
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Explain why the researchers asked independent judges to rate the toys. (2 marks)

2	3
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Write a set of standardised instructions that would be suitable to read out to participants in this experiment. (5 marks)

**Section C continues on the next page**

**Turn over ►**

Psychological research suggests an association between birth order and certain abilities. For example, first-born children are often logical in their thinking whereas later-born children tend to be more creative. A psychologist wonders whether this might mean that birth order is associated with different career choices. She decides to investigate and asks 50 artists and 65 lawyers whether they were the first-born child in the family or not.

**2 | 4** Write a non-directional hypothesis for this study. (2 marks)

**2 | 5** Identify an appropriate sampling method for this study and explain how the psychologist might have obtained such a sample. (3 marks)

The psychologist found the following results:

- 20 of the 50 artists were first-born children
- 35 of the 65 lawyers were first-born children.

She analysed her data using a statistical test and calculated a value of  $\chi^2 = 2.27$ . She then looked at the relevant table to see whether this value was statistically significant. An extract from the table is provided below.

**Table 1: Critical values of  $\chi^2$**

Level of significance for a one-tailed test				
	0.10	0.05	0.025	0.01
Level of significance for a two-tailed test				
	0.20	0.10	0.05	0.02
<i>df</i>				
1	1.64	2.71	3.84	5.41

Calculated value of  $\chi^2$  must be equal to or exceed the table (critical) values for significance at the level shown

**2 | 6** Imagine that you are writing the results section of the report on this investigation. Using information from the description of the study above and the relevant information from the statistical table, provide contents suitable for the results section.

You must provide all of the following:

- an appropriately labelled  $2 \times 2$  contingency table
- a sketch of an appropriately labelled bar chart
- identification of the appropriate statistical test with justification for its use
- identification of an appropriate significance level
- a statement of the results of the statistical test in relation to the hypothesis.

(12 marks)

**END OF QUESTIONS**