



General Certificate of Education
Advanced Level Examination
June 2015

Psychology (Specification B)

PSYB4

Unit 4 Approaches, Debates and Methods in Psychology

Tuesday 16 June 2015 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 **paper reference** is PSYB4.
- Choose **one** option from **Section A**, either **Option A** or **Option B**. Answer **all** questions on the option you choose.
- **All** questions in **Section B** and **Section C** are compulsory.
- Do all rough work in your 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 60.
- The 12-mark questions should be answered in continuous prose. You are advised to plan your answers carefully. In these questions, you will be marked on your ability to:
 - use good English
 - organise information clearly
 - use specialist vocabulary where appropriate.

Section A Approaches in Psychology

There are two options in this section: Option A and Option B.

Choose **one** of these options. Answer **all** questions on the option you choose.

Each option carries 20 marks.

Option A

0 1

Ella is a two-year-old child. She has started to misbehave when she is out shopping with her parents. In the supermarket, she often throws a tantrum, screaming and kicking. Her parents always respond by shouting at Ella but this has not stopped her tantrum behaviour.

Using your knowledge of behaviourism, explain how Ella's parents could encourage Ella to be better behaved when out shopping.

[4 marks]

Researchers investigating the genetic basis of ADHD (attention deficit hyperactivity disorder) studied relatives of individuals already diagnosed with ADHD to see if they too had the same disorder. They found the following concordance* rates:

Table 1 Concordance* rates (%) for ADHD between family members

Sibling	Non-identical Twin	Identical Twin
35%	38%	82%

*Concordance rates show the extent to which two groups of people share the same characteristic.

0 2

With reference to the percentages in **Table 1**, explain what can be concluded about the genetic basis of ADHD. Justify your answer.

[2 marks]

0 3

Explain **one** limitation of the type of investigation described in question **0 2**.

[2 marks]

0 4

Outline what is meant by an eclectic approach in psychology. Discuss the merits of taking an eclectic approach to explaining **and/or** treating human behaviour. In your answer refer to **at least one** topic you have studied in psychology.

[12 marks]

Option B

- 0 5** Humanistic psychologists refer to promoting personal growth. Explain what **either** Maslow **or** Rogers meant by 'promoting personal growth'.
[4 marks]
- 0 6** Freud used case studies to highlight his psychodynamic concepts. Explain why some psychologists regard Freud's use of case studies to support his theory as unscientific.
[4 marks]
- 0 7** Choose **two** approaches in psychology. Discuss **at least one** practical application of **each** approach that you have chosen.
[12 marks]

Turn over for Section B

Turn over ►

Section B Debates in Psychology

Answer **all** questions in this section.

This section carries 20 marks.

Researchers studied healthy kittens born with normal vision. From birth to five months old the kittens were raised in an environment where the only thing they could see was vertical lines (see **Figure 1**). Following this period, the kittens were put in a normal environment. In this normal environment, they could not perceive horizontal stimuli so they bumped into horizontal objects.

Figure 1 Picture of a kitten confined to a world of vertical lines



- 0 8** How does the study above demonstrate the interaction of nature and nurture? [2 marks]
- 0 9** Briefly explain why a study such as this would have benefitted from the use of a control group. Suggest a suitable control group for this type of study. [2 marks]
- One of the major debates in psychology is the holism and reductionism debate.
- 1 0** Briefly outline what is meant by 'holism' in the context of this debate. [1 mark]
- 1 1** Briefly discuss **at least one** strength of holistic explanations of human behaviour. [3 marks]
- 1 2** Outline features of the scientific approach. Discuss **at least one** strength and **at least one** limitation of the scientific approach in psychology. [12 marks]

Section C Methods in Psychology

Answer **all** questions in this section.

This section carries 20 marks.

Health psychologists were researching levels of physical activity in pre-school children. They carried out naturalistic observations of 30 children (15 boys and 15 girls) aged four years at a nursery school. They were interested in recording the levels of physical activity during the afternoon outdoor break period.

Each child was observed at 30-second intervals during the 15-minute break period. The observers recorded four physical activity categories: running, walking, standing and sitting. Inter-observer reliability was assessed and a correlation of +0.95 was found between the data from the two observers.

After all the data had been collected, the observations from the 15-minute break were split into three time periods: the first five minutes; the middle five minutes; the last five minutes.

Table 2 The number of times children were recorded running, walking, standing or sitting during the three 5-minute periods

5-minute periods	Running	Walking	Standing	Sitting
0–5 mins	142	67	61	30
6–10 mins	88	60	90	62
11–15 mins	35	58	98	109

- 1 3** What could you conclude about levels of physical activity from the data in **Table 2**? Justify your answer. **[2 marks]**
- 1 4** Identify **one** variable that might have been a confounding variable in this study. Justify your answer. **[2 marks]**
- 1 5** Explain what a correlation of +0.95 suggests about the reliability of the observations in this study. **[2 marks]**
- 1 6** Discuss **one** strength of a naturalistic observation. Refer to this study in your answer. **[3 marks]**

Section C continues on the next page

Turn over ►

In the second part of the study, the psychologists analysed the data to see if there were differences in levels of activity between boys and girls. The psychologists looked at the first 30 seconds of outdoor play for each child. They classified the physical activity levels as either 'active' (running and walking) or 'passive' (standing and sitting). The results are set out in **Table 3** below:

Table 3 The number of boys and girls engaging in 'active' or 'passive' physical activities in the first 30 seconds of break

Physical Activity Levels	Boys	Girls
Active	13	6
Passive	2	9

1 7

Write a suitable hypothesis for the second part of the study.

[2 marks]

1 8

A Chi-square test was used to analyse the data in **Table 3**. The calculated value of Chi-square was 7.03.

Using **Table 4** below, interpret the results of the study. Justify your answer.

[3 marks]

Table 4 Critical values of Chi-square (χ^2)

Level of significance for two-tailed test				
df	0.1	0.05	0.01	0.001
1	2.706	3.841	6.635	10.831

(The calculated value of Chi-square has to be equal to or greater than the table value for the result to be significant.)

The psychologists decided to carry out a further investigation into the effect of duration of outdoor breaks on activity levels. They predicted that children would take more steps during three short breaks than during one long break. Ten nursery children took part in the study. Each child wore a pedometer to measure the number of steps that he or she took during breaks. On the first day the children had their usual 15-minute break. The next day the children had three separate five-minute breaks.

1	9
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Explain how the results from this study could be analysed. Give reasons for your answer. You should refer to the following:

- descriptive statistics that could be used to analyse the data
- the significance level
- whether the researchers would use a one-tailed or two-tailed test
- the statistical test that could be used to analyse the data, with justification.

[6 marks]

END OF QUESTIONS

There are no questions printed on this page

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Figure 1: Reprinted by permission from Macmillan Publishers Ltd: Nature, Development of the Brain depends on the Visual Environment, Blakemore and Cooper, 1970, Vol 228, Issue 5270

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