

A-level PSYCHOLOGY (7182/2)

Paper 2 Psychology in Context

2017

Morning

Time allowed: 2 hours

Materials

For this paper you may have:

- a calculator.

Instructions

- Use black ink or black ball-point pen.
- Fill in the boxes at the bottom of this page.
- Answer **all** questions. You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- Do all rough work in this 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 96.
- Questions should be answered in continuous prose. You will be assessed on your ability to:
 - use good English
 - organise information clearly
 - use specialist vocabulary where appropriate.

Please write clearly, in block capitals, to allow character computer recognition.

Centre number

Candidate number

Surname

Forename(s)

Candidate signature _____

Section A


Approaches in Psychology


Answer **all** questions in this section

Only **one** answer per question is allowed.

For each answer completely fill in the circle alongside the appropriate answer.

CORRECT METHOD  WRONG METHODS    

If you want to change your answer you must cross out your original answer as shown. 

If you wish to return to an answer previously crossed out, ring the answer you now wish to select as shown. 

0 1 . **1** A phenotype is the result of the combined effect of
Shade **one** box only.

- A neurotransmitters and environment.
- B inheritance and environment.
- C genetic makeup and neurotransmitters.
- D genotype and evolution.

[1 mark]

0 1 . **2** Which **one** of the following statements about evolution is **false**?
Shade **one** box only.

- A Evolution involves adapting to the environment.
- B Evolution involves breeding of those best able to survive.
- C Evolution involves common genetic material between species.
- D Evolution involves changes in behaviour from one generation to the next.

[1 mark]

0 2

Read the item and then answer the question that follows.

Bradley has just started to play snooker and is keen to play well. He watches carefully when his partner takes a difficult shot then tries to copy the same shot. He thinks about how his partner was holding the snooker cue and whether he can do the same.

Social learning theorists refer to the role of mediational processes in learning. Referring to Bradley's experiences, explain the role of mediational processes in learning.

[4 marks]

0 3

Describe Wundt's role in the development of psychology.

[6 marks]

Turn over for the next section

Section B**Biopsychology**

Answer **all** questions in this section

0 6

Outline the role of adrenaline in the fight or flight response.

[4 marks]

0 7

Robert suffered a stroke at the age of 55. After the stroke he was paralysed down his right side, though he could move his left arm and leg easily. Robert could clearly understand what was said to him, but was unable to produce any speech.

Discuss how knowledge of hemispheric lateralisation and language centres in the brain has helped our understanding of cases such as Robert's. Refer to Robert's case in your answer.

[16 marks]

You may use this space to plan your answer.

Extra space

A psychologist wanted to test the effects of biological rhythms on the ability to solve maths problems. She used random sampling to form two groups each of 20 students.

She tested one group on one set of maths problems at 3 am in the morning. The other group were tested on another set of maths problems at 3 pm in the afternoon. She found that performance of the group tested at 3 pm was significantly better than the group tested at 3 am.

When submitted for peer review the paper was rejected because of serious design problems.

0	8
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Explain **one** problem with the design of this study and suggest ways of dealing with this problem.

[4 marks]

Turn over for the next section

Section C

Research methods

Answer **all** questions in this section

Read the item and then answer the questions that follow.

Researchers were interested in the spatial awareness skills of motorists. They decided to investigate a possible relationship between different aspects of spatial awareness. Motorists who had between ten and twelve years of driving experience and held a clean driving licence with no penalty points were asked to complete two sets of tasks.

Set 1: To follow a series of instructions and using a map, to identify various locations correctly. This provided a map reading score for each motorist with a maximum score of 20.

Set 2: To complete a series of practical driving tasks accurately. This involved tasks such as driving between cones, driving within lines and parking inside designated spaces. Each motorist was observed completing the **Set 2** tasks by a single trained observer who rated each performance by giving the driver a rating out of 10.

The following results were obtained.

Table 1: The map reading scores and driver ratings of motorists

Participant driver	Map reading score	Driver rating
1	17	9
2	8	4
3	15	7
4	12	6
5	3	2
6	4	4
7	6	8
8	14	6
9	19	10

0 9

Should the hypothesis be directional? Explain your answer.

[2 marks]

1	0
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Write a suitable hypothesis for this investigation.

[3 marks]

1	1
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Identify a suitable graphical display for the data in **Table 1** and briefly explain why this display would be appropriate.

[2 marks]

1	2
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Using the data in **Table 1**, comment on the relationship between the map reading scores and the driver rating scores of the participants.

[3 marks]

Table 2: Table of critical values for a Spearman's rho test

		Level of significance for a two-tailed test			
		0.10	0.05	0.02	0.01
N=		Level of significance for a one-tailed test			
		0.05	0.025	0.01	0.005
	8	0.643	0.738	0.833	0.881
	9	0.600	0.700	0.783	0.833
	10	0.564	0.648	0.745	0.794

Calculated r_s must EQUAL or EXCEED the critical value for significance at the level shown.

1	5
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After analysis of the data the researchers obtained a calculated value of $r_s = 0.808$.

Using the information in **Table 2** above, what conclusion can the researchers draw about the relationship between the map reading and driving skills of the motorists? Explain your answer.

[4 marks]

1 | 6

Distinguish between a Type I error and a Type II error.

[4 marks]

When the researchers looked at the data collected more closely they noticed possible gender differences in the results.

Results table of means and standard deviations for the map reading scores of male and female motorists.

	Map reading scores	
	Males	Females
Mean	15.4	5.25
Sd	2.70	2.22

1 | 7

What do the mean and standard deviation values suggest about the male and female performances in the investigation?

[4 marks]

1 8

In a replication of the part of the study in which map reading skills were investigated, 20 men and 20 women completed the original map reading task and the researchers obtained the following data:

Male map reading scores	17, 20, 13, 12, 13, 11, 8, 17, 12, 15, 14, 18, 20, 17, 17, 15, 13, 10, 5, 9.
Female map reading scores	12, 8, 10, 11, 4, 2, 11, 18, 17, 12, 13, 10, 3, 15, 11, 9, 10, 11, 16, 10.

The mean map reading score for both groups together was 12.23.

What percentage of the male group scored above the mean score and what percentage of the female group scored above the mean score? Show your calculations.

[4 marks]

1 9

Using your answers to both **question 17** and **question 18**, comment on the performances of the male and the female participants in this study.

[2 marks]

2 0

Briefly explain **one** reason why it is important for research to be replicated.

[2 marks]

2 1

Imagine you have been asked to design a study to investigate possible gender differences in card sorting behaviours. You decide you will ask participants to sort a shuffled pack of playing cards into their suits of hearts, clubs, diamonds and spades. You decide you will time the participants as they do this using a stop watch.

Discuss the following aspects of this investigation:

- with reference to the card sorting task, explain how you would ensure that this is made the same task for all participants
- **one** methodological issue you should take into account when obtaining suitable participants for this study and explain how you would deal with this issue
- how you would ensure that the experience of your participants is ethical.

[9 marks]

You may use this space to plan your answer.

Extra space

END OF QUESTIONS

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