AQA

Please write clearly in block capitals.

Centre number | | | | | | Candidate number | | | | |

Surname _____

Forename(s) _____

Candidate signature _____

A-level PSYCHOLOGY

Paper 2 Psychology in context

Wednesday 14 June 2017 Afternoon Time allowed: 2 hours

Materials

For this paper you may use:
- a calculator.

For Examiner's Use	
Section	Mark
A	
B	
C	
TOTAL	

Instructions
- Use black ink or black ball-point pen.
- Fill in the boxes at the top 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.

Section A

Approaches in psychology

Answer **all** questions in this section.

A recent study showed that Alzheimer's disease may be partly inherited.

John's father suffered from Alzheimer's disease. John is keen to get genetically tested to see if he will develop Alzheimer's disease.

0 1 Explain why John's genotype will **not** reveal whether he will suffer from Alzheimer's disease.

[4 marks]

Extra space

0 2 Describe the structure of the personality according to the psychodynamic approach.

[4 marks]

Extra space

Tatiana's parents are concerned about her mobile phone use. She is an anxious child and has low self-esteem. Tatiana only feels good about herself when she receives messages or positive comments on social media. She feels safe when she has her phone and socially isolated without it.

Tatiana's parents worry that her dependence on her mobile phone is starting to affect her well-being and achievement at school.

0 3 Outline and evaluate the humanistic approach. Refer to Tatiana's behaviour in your answer.

[16 marks]

You may use this space to plan your answer.

Extra space

24

Section B

Biopsychology

Answer **all** questions in this section.

0 4 Explain the process of synaptic transmission.

[4 marks]

Extra space

Lotta's grandmother suffered a stroke to the left hemisphere, damaging Broca's area and the motor cortex.

0 5 Using your knowledge of the functions of Broca's area and the motor cortex, describe the problems that Lotta's grandmother is likely to experience.

[4 marks]

Extra space

Lotta worries that because of her grandmother's age she will not be able to make any recovery.

0 6 Using your knowledge of plasticity and functional recovery of the brain after trauma, explain why Lotta might be wrong.

[4 marks]

Extra space

A researcher wants to investigate the effectiveness of physiotherapy in the recovery of stroke patients with brain damage. Carers of stroke patients will be sent questionnaires to produce quantitative data.

0 7 Explain **one** disadvantage of obtaining quantitative data in this study.

[2 marks]

0 8 Write **one** question that could be used in the researcher's questionnaire to produce quantitative data and **one** question that could be used in the researcher's questionnaire to produce qualitative data.

[2 marks]

Quantitative question:

Qualitative question:

0 9 Outline and evaluate **one or more** ways of studying the brain.

[8 marks]

Extra space

Section C

Research methods

Answer **all** questions in this section.

For each multiple-choice question, 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. 

A psychologist wanted to test whether listening to music improves running performance.

The psychologist conducted a study using 10 volunteers from a local gym. The psychologist used a repeated measures design. Half of the participants were assigned to condition A (without music) and half to condition B (with music).

All participants were asked to run 400 metres as fast as they could on a treadmill in the psychology department. All participants were given standardised instructions. All participants wore headphones in both conditions. The psychologist recorded their running times in seconds. The participants returned to the psychology department the following week and repeated the test in the other condition.

1 0 Identify the type of experiment used in this study. Shade **one** box only.

A Laboratory ⬭

B Natural ⬭

C Quasi ⬭

D Research ⬭

[1 mark]

1 1 Identify the operationalised dependent variable in this study.

[2 marks]

The results of the study are given in **Table 1** below.

Table 1 Mean number of seconds taken to complete the 400m run and the standard deviation for both conditions

	Condition A (without music)	**Condition B** (with music)
Mean 400m time (s)	123	117
Standard deviation	9.97	14.5

1 2 Explain why a histogram would **not** be an appropriate way of displaying the means shown in **Table 1**.

[2 marks]

Extra space

1 3 Name a more appropriate graph to display the means shown in **Table 1**. Suggest appropriate X (horizontal) and Y (vertical) axis labels for your graph choice.

[3 marks]

Name of graph: _____

X axis label: _____

Y axis label: _____

1 4 What do the mean and standard deviation values in **Table 1** suggest about the participants' performances with and without music? Justify your answer.

[4 marks]

Extra space _____

1 5 Calculate the percentage decrease in the mean time it took participants to run 400 metres when listening to music. Show your workings. Give your answer to three significant figures.

[4 marks]

Extra space

1 6 The researcher used a directional hypothesis and analysed the data using a related t-test. The calculated value of t where degrees of freedom (df) = 9 was 1.4377. He decided to use the 5% level of significance.

Table 2 Table of critical values of t

Level of significance for a one-tailed test	0.05	0.025
Level of significance for a two-tailed test	0.10	0.05
df = 1	6.314	12.706
2	2.920	4.303
3	2.353	3.182
4	2.132	2.776
5	2.015	2.571
6	1.943	2.447
7	1.895	2.365
8	1.860	2.306
9	1.833	2.262
10	1.812	2.228

Calculated value of t must be equal to or greater than the critical value in this table for significance to be shown.

Give **three** reasons why the researcher used a related t-test in this study and, using **Table 2**, explain whether or not the results are significant.

[5 marks]

1 7 What is meant by a Type II error? Explain why psychologists normally use the 5% level of significance in their research.

[3 marks]

Extra space

1 8 Identify **one** extraneous variable that could have affected the results of this study. Suggest why it would have been important to control this extraneous variable and how it could have been controlled in this study.

[3 marks]

Extra space

1 9 The report was submitted for peer review and a number of recommendations were advised.

Describe the process and purposes of peer review.

[6 marks]

Extra space

People's perception of how they spend their time at the gym is often not very accurate. Some spend more time chatting than on the treadmill. A psychologist decides to observe the actual behaviour of an opportunity sample of gym users at a local gym.

2 0 Explain why it is more appropriate for the psychologist to use an observation than a questionnaire in this case.

[3 marks]

Extra space

2 1 Design an observational study to investigate how people spend their time at the gym.

In your answer you will be awarded credit for providing appropriate details of:

- type of observation with justification
- operationalised behavioural categories
- use of time and/or event sampling with justification
- how reliability of data collection could be assessed.

[12 marks]

You may use this space to plan your answer.

Extra space

48

END OF QUESTIONS