Surname	Centre Number	Candidate Number
First name(s)		2

GCE A LEVEL

Z22-A290U20-1

A290U20-1

WEDNESDAY, 8 JUNE 2022 – MORNING

PSYCHOLOGY – A level component 2
Psychology: Investigating Behaviour

2 hours 15 minutes

For Examiner's use only		
Question	**Maximum Mark**	**Mark Awarded**
1.	**10**	
2.	**6**	
3.	**4**	
4.	**2**	
5.	**6**	
6.	**14**	
7.	**22**	
8.	**8**	
9.	**9**	
10.	**19**	
Total	**100**	

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ADDITIONAL MATERIALS

In addition to this paper you may require a calculator and a ruler.

INSTRUCTIONS TO CANDIDATES

Use black ink or black ball-point pen. Do not use gel pen or correction fluid.

Write your name, centre number and candidate number in the spaces at the top of this page.

Answer **all** questions.

Write your answers in the spaces provided in this booklet. If you run out of space, use the additional page(s) at the back of the booklet, taking care to number the question(s) correctly.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets at the end of each question or part-question.

You are reminded of the necessity for good English and orderly presentation in your answers.

Assessment will take into account the quality of written communication used in your answers.

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SECTION A – Principles of Research

Answer **all** questions.

1. (a) Explain what is meant by 'primary sources' in psychology. [2]

(b) Explain what is meant by 'secondary sources' in psychology. [2]

(c) Using examples from psychology, discuss why primary sources may be better than secondary sources. [6]

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2. (a) Explain the difference between quantitative and qualitative data. [2]

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(b) Evaluate the use of qualitative data in psychological research. [4]

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3. Describe the following ways of assessing validity in psychological research:

(a) concurrent validity. [2]

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(b) construct validity. [2]

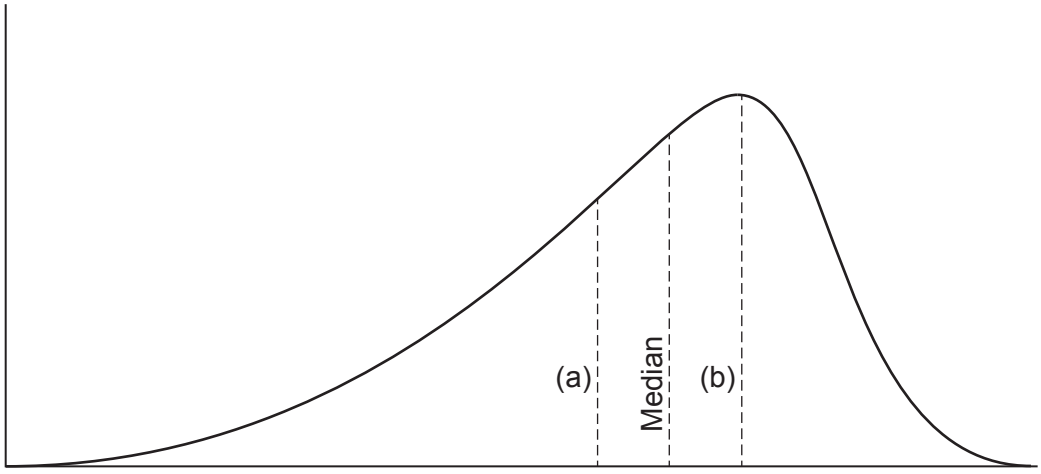
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4. Identify which measures of central tendency are represented by (a) and (b) on this diagram:



(a) ..... [1]

(b) ..... [1]

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5. (a) Define the term 'case studies'. [2]

(b) Explain **one** strength and **one** weakness of using case studies in psychological research. [2 + 2]

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6. (a) Briefly describe the results found by Milgram in his (1963) research *'Behavioural Study of Obedience'*. [2]

(b) Milgram conducted an observation of obedience using a volunteer (self-selected) sample in a laboratory environment. Evaluate the methodology, sample and location of research used by Milgram in his (1963) research *'Behavioural Study of Obedience'*. [12]

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SECTION B – Personal Investigations

You should answer **all** the questions in this section with reference to the investigations carried out in your study of psychology.

INVESTIGATION ONE: An experiment on helping behaviour

7. (a) (i) State the operationalised experimental hypothesis used in your investigation. [2]

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(ii) Identify whether the hypothesis in (a)(i) is directional or non-directional and explain why you chose this for your experiment. [1 + 2]

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(b) (i) Identify and explain **one** extraneous variable you considered in your experiment. [1+2]

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(ii) Explain how you dealt with the extraneous variable identified in (b)(i). [2]

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(c) Identify the experimental design and explain why it was appropriate in your experiment. [1 + 3]

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(d) Identify and fully justify the choice of inferential statistical test that you used to analyse the data in your experiment. [4]

(e) Explain **two** improvements you could make to your experiment. [4]

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INVESTIGATION TWO: An interview on the use of social media

8. (a) Explain **one** strength and **one** weakness of using an interview in your investigation. [2 + 2]

(b) Explain **one** ethical issue that you considered in your interview and explain how you dealt with this ethical issue. [2 + 2]

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SECTION C – Application of research methods to a novel scenario

Answer **all** questions.

9. A primary school headteacher received complaints from a few parents that a teacher was discriminating against the boys in her class. The parents complained the teacher was giving the boys more negative attention and less positive attention than the girls. The headteacher asked an educational psychologist to carry out a participant observation. Using event sampling, she recorded how many times the teacher paid attention to the pupils in the class, noting the gender of the pupil and whether the attention was negative or positive. The educational psychologist's findings are shown in the table below:

Fig.1 – A table to show the number and gender of the pupils receiving positive attention and negative attention.

	Male pupil	**Female pupil**
Number of times pupils receive positive attention	6	18
Number of times pupils receive negative attention	12	4

(a) Describe what is meant by the term 'participant observation'. [2]

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(b) Describe what is meant by the term 'event sampling'. [2]

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(c) Identify the level of measurement of the data collected by the researcher in this research. [1]

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(d) The educational psychologist decided to write up a report about the observation for the headteacher. In the report she decided to convert the data in Fig.1 into percentages.

Fig. 2 – A table to show the percentage and gender of the pupils receiving positive attention and negative attention.

	Male pupil	**Female pupil**
Number of times pupils receive positive attention	15%	(ii)
Number of times pupils receive negative attention	(i)	10%

(i) Showing your workings, calculate the percentage for the number of times negative attention was received by a male pupil. [2]

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(ii) Showing your workings, calculate the percentage for the number of times positive attention was received by a female pupil. [2]

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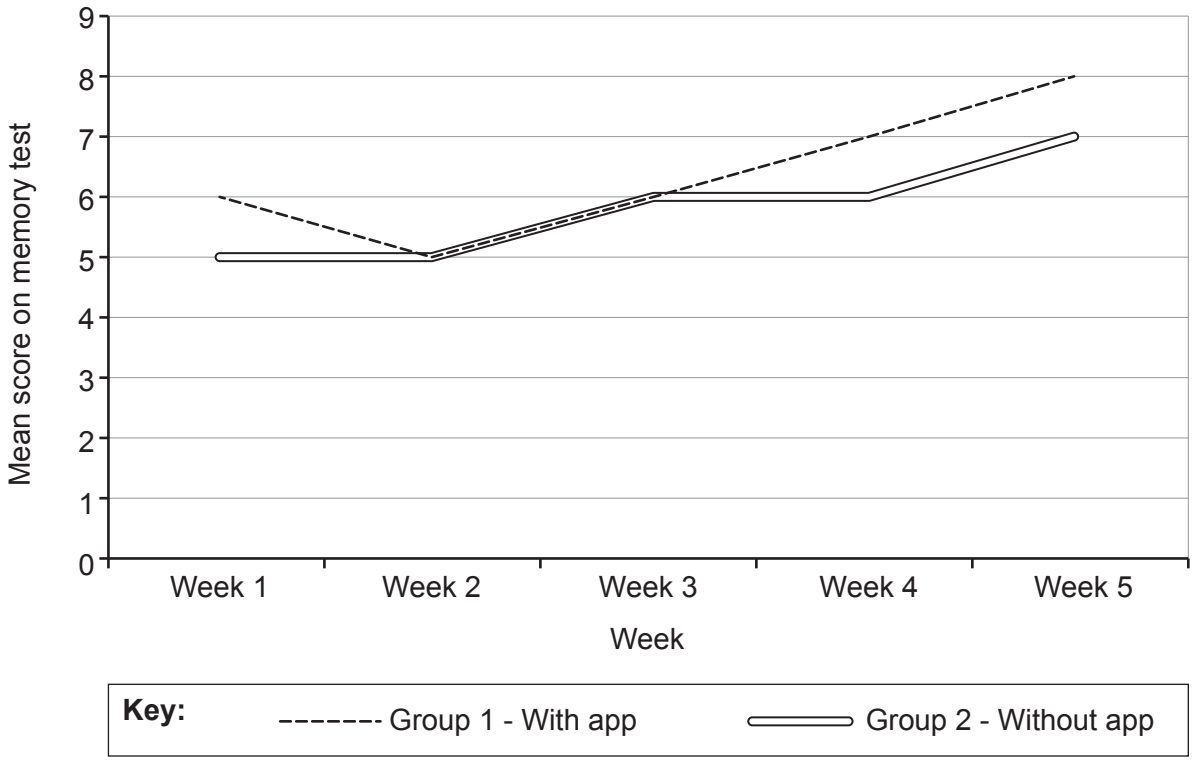
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10. A psychologist investigated the claim a company had made about its brain training app. The company claimed that using the app every day could improve memory. He decided to conduct a matched pairs experimental design, using 20 pairs. Group One used the brain training app for 15 minutes every day, Group Two did not use the app at all. Each of the groups was given a memory test (on a scale of 0-10) once a week for five weeks. The memory test was administered in a laboratory. The psychologist calculated the mean score of each group for each of the weekly tests and the results are shown on the graph below.

Fig.3 – Mean scores on memory test with or without brain training app over five weeks.



(a) (i) Identify the graphical representation used by the psychologist in Fig.3. [1]

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(ii) Explain why the graphical representation used by the psychologist in Fig.3 is appropriate in this research. [2]

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(iii) What conclusion can be drawn from the information in Fig.3? [2]

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(b) Fully explain how the psychologist could have applied the matched pairs experimental design in this research. [3]

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In the final week the psychologist compared the memory scores of the 20 pairs; in 18 of the pairs the participants had different memory scores. The psychologist used a Wilcoxon matched pairs signed ranks test.

(c) Apart from using a matched pairs experimental design, explain **two** reasons why a Wilcoxon matched pairs signed ranks test is appropriate to analyse the data in this research. [2 + 2]

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(d) The psychologist used a directional hypothesis and found that the observed (calculated) value was 53.

(i) Using the critical values table, identify which critical value is appropriate in this research. [1]

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n	0.01	0.05
18	27	40
19	32	46
20	37	52
21	42	58
22	48	65

(ii) Explain why the psychologist should accept or reject the null hypothesis in this research. [2]

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(e) Using your knowledge of psychology, briefly discuss why conducting research in a laboratory may be better than conducting research online. [4]

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END OF PAPER

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