Surname	Centre Number	Candidate Number
First name(s)		2

GCE A LEVEL

S25-A290U20-1

A290U20-1

WEDNESDAY, 21 MAY 2025 – MORNING

PSYCHOLOGY – A level component 2
Psychology: Investigating Behaviour

2 hours 15 minutes

For Examiner's use only		
Question	**Maximum Mark**	**Mark Awarded**
1.	**4**	
2.	**4**	
3.	**6**	
4.	**6**	
5.	**2**	
6.	**4**	
7.	**6**	
8.	**14**	
9.	**15**	
10.	**15**	
11.	**8**	
12.	**16**	
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.

You may use a pencil for graphs and diagrams only.

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. Additional space is provided for some questions within the booklet (if required). If further space is required for any question, you should 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 the term 'confounding variable'. [2]

(b) Explain what is meant by the term 'co-variables'. [2]

2. Using appropriate symbols, express the following:

(a) equal to [1]

(b) greater than [1]

(c) probability of less than 10% [2]

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3. Explain **two** advantages of using longitudinal research. [6]

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4. (a) Describe how you would use a stratified sampling technique to select a sample of participants. [2]

(b) Explain **one** advantage and **one** disadvantage of using stratified sampling in psychological research. [2 + 2]

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5. Explain how you would calculate the mean value of a set of data. [2]

6. (a) Explain the difference between $p<0.01$ and $p<0.05$. [2]

(b) Explain the difference between 'interval data' and 'ratio data'. [2]

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7. Evaluate the use of conducting research on-line. [6]

Additional space for Question **7** only:

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8. (a) Describe the sample used in Milgram's (1963) research '*Behavioural study of Obedience*'. [4]

Additional space for Question **8**(a) only:

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(b) Briefly evaluate the sample used in Milgram's (1963) research '*Behavioural study of Obedience*'. [5]

Additional space for Question **8**(b) only:

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(c) Briefly evaluate the ethical issues in Milgram's (1963) research '*Behavioural study of Obedience*'. [5]

Additional space for Question **8**(c) only:

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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: A quasi-experiment on age and sleep.

9. (a) State a fully operationalised hypothesis for your quasi-experiment. [2]

(b) Justify **one** reason why a quasi-experiment was the most suitable method for this investigation. [2]

Additional space for Question **9**(b) only:

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(c) Explain **one** issue of reliability which you considered in your quasi-experiment and how you dealt with the issue. [4]

Additional space for Question **9**(c) only:

(d) Explain **one** ethical issue which you considered in your quasi-experiment and how you managed this ethical issue. [4]

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Additional space for Question **9**(d) only:

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(e) Identify and justify the descriptive statistic you used to describe the data in your quasi-experiment. [1 + 2]

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INVESTIGATION TWO: A correlational study using a Stroop test.

10. (a) (i) State the aim of your correlational study. [2]

(ii) State the operationalised co-variables that you used in your investigation. [1 + 1]

(b) Identify the sampling technique you used to recruit participants for your correlational study and justify your choice of sampling technique. [1 + 2]

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(c) (i) Identify an appropriate graphical representation which could be drawn from the data you collected in your correlational study. [1]

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(ii) Identify the inferential statistic you used to analyse the data you collected for your correlational study. [1]

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(iii) Explain **two** reasons why the inferential statistic identified in **10**(c)(ii) was appropriate. [2]

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(d) Explain **one** issue of validity which you considered in your correlational study and explain how you dealt with this issue. [4]

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SECTION C – Application of research methods to a novel scenario

Answer **all** questions.

11. A researcher wanted to test the hypothesis that left-handed people are more creative than right-handed people. A quota sample of 100 students at university were asked to take part in an online investigation. The participants stated whether they were left-handed or right-handed and also which subjects they had chosen to study for their degree. Subjects such as Art and Photography were classified as 'creative' and subjects such as Mathematics and Science were classified as 'non-creative' by the researcher.

(a) State an operationalised null hypothesis for this investigation. [2]

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The findings are shown below (**Figure 1**).

Figure 1: The number of students studying each subject type.

Handedness	Creative	Non-creative
Left	8	2
Right	34	56

(b) Identify an appropriate measure of central tendency for this data and explain why this measure is suitable for the data in **Figure 1**. [3]

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(c) The researcher carried out a Chi Square test and found an observed (calculated) value of 6.54. The degrees of freedom (df) was 2. Identify the appropriate critical value from **Figure 2** and explain why the psychologist should accept or reject the null hypothesis at $p<0.05$. [3]

Figure 2: Level of significance for a two-tailed test (non-directional hypothesis).

df	0.10	0.05	0.025	0.01
1	2.71	3.84	5.02	6.64
2	4.61	5.99	7.38	9.21
3	6.25	7.82	9.35	11.35
4	7.78	9.49	11.14	13.28
5	9.24	11.07	12.83	15.09
6	10.65	12.59	14.45	16.81
7	12.02	14.07	16.01	18.48
8	13.36	15.51	17.54	20.09
9	14.68	16.92	19.02	21.67
10	15.99	18.31	20.48	23.21

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12. A group of researchers wanted to investigate if adverts aimed at children promoted active or non-active play. They selected 50 adverts shown during children's TV programmes. Each researcher counted the main type of play seen in the advert. The data is displayed in **Figure 3** below:

Figure 3: Main types of play seen in the adverts.

Type of play	Number of times the type of play was seen
Running	14
Computer/screen-based	26
Cycling	6
Art and Craft	4

(a) Identify the level of measurement of the data in this research. [1]

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(b) Explain **one** issue of reliability with this investigation and how the researcher could have assessed the issue. [4]

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(c) (i) Calculate the percentage of adverts that contained computer/screen-based activity. Show your workings. [2]

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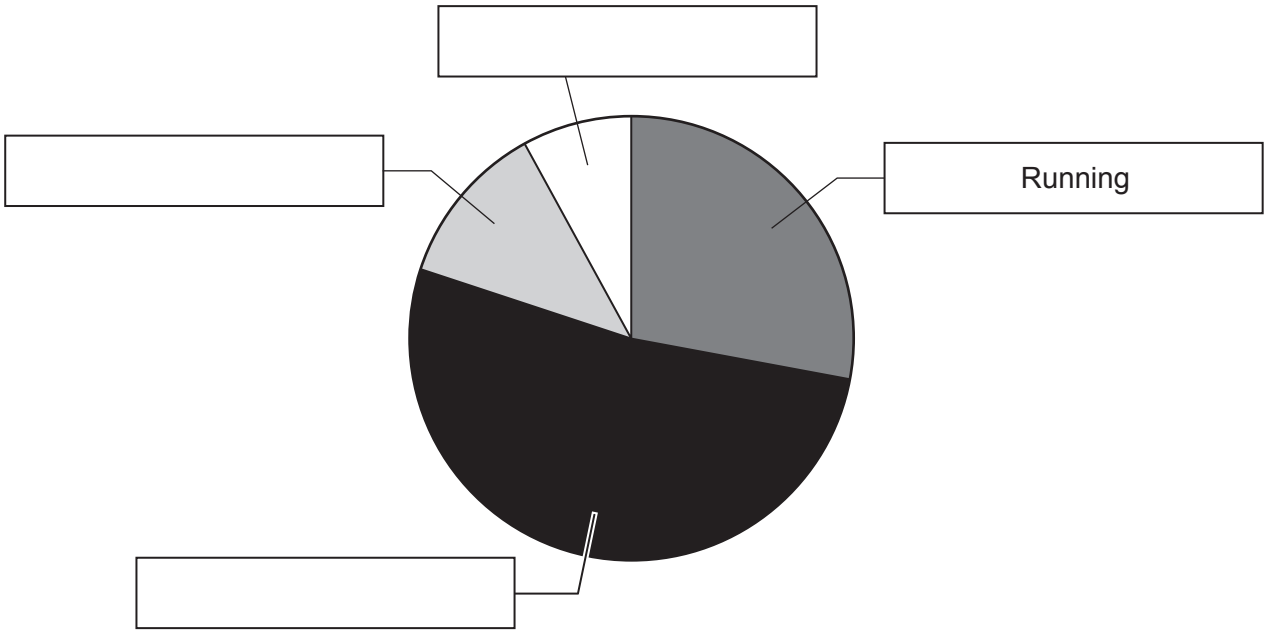
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(ii) Identify the type of graphical representation used in **Figure 4** below and then complete the labels of the three blank segments on **Figure 4**. [4]

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Figure 4: Graphical representation of the proportion of adverts containing each type of play seen.



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(iii) Apart from the type of graphical representation used in **Figure 4**, identify an alternative appropriate graphical representation that could be used to display the data in this research. [1]

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(d) Evaluate **two** disadvantages of using qualitative data in psychological research. [2 + 2]

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END OF PAPER

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Question number	Additional page, if required. Write the question number(s) in the left-hand margin.

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