

Surname	Centre Number	Candidate Number
First name(s)		2



GCE AS

B290U20-1



S23-B290U20-1


MONDAY, 22 MAY 2023 – AFTERNOON

PSYCHOLOGY – AS component 2

Psychology: Investigating Behaviour

1 hour 45 minutes

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 need for good English and orderly, clear presentation in your answers.

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

For Examiner's use only		
Question	Maximum Mark	Mark Awarded
1.	12	
2.	8	
3.	10	
4.	6	
5.	4	
6.	16	
7.	24	
Total	80	



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2. (a) Explain **two** strengths of using a longitudinal study in psychology.

[2 + 2]

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(b) Explain **two** weaknesses of using a longitudinal study in psychology.

[2 + 2]

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3. Explain how you would calculate the following:

(a) Median.

[2]

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(b) Mode.

[2]

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(c) Standard deviation.

[6]

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4. (a) Using an example, explain what is meant by the term 'confounding variables'. [3]

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- (b) Using an example, explain what is meant by 'operationalisation of variables'. [3]

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5. Identify whether the following hypotheses are either directional, non-directional or null:

- (a) There is no relationship between the number of hours spent revising and the exam result. [1]

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- (b) There will be a difference in the response times of participants who have consumed an alcoholic drink and participants who have not consumed an alcoholic drink. [1]

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- (c) As the number of hours of sunshine decreases, the number of depressive symptoms increases. [1]

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- (d) Participants who own dogs will have higher wellbeing scores than participants who do not own a dog. [1]

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Section BAnswer **all** questions.

6. A psychologist conducted a case study on her son to investigate how language skills developed. The son spoke his first three words at 12 months. The psychologist then recorded every word her son spoke on the first day of every month, until the son was 18 months old. The psychologist then presented this data in the frequency table below:

Figure 1. The number of words spoken on the first day of each month between the ages of 12 and 18 months.

Age (Months)	12	13	14	15	16	17	18
Number of words spoken	3	6	7	12	11	26	52

- (a) Explain **two** reasons why a case study would be an appropriate method to use in this research. [2 + 2]

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- (b) (i) Explain why researcher bias may be an issue of validity in this research. [2]

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- (ii) Explain what could be done to deal with the researcher bias in this research. [2]

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- (c) (i) Explain why a line graph is an appropriate graphical representation to display the data from the frequency table (Figure 1.). [2]

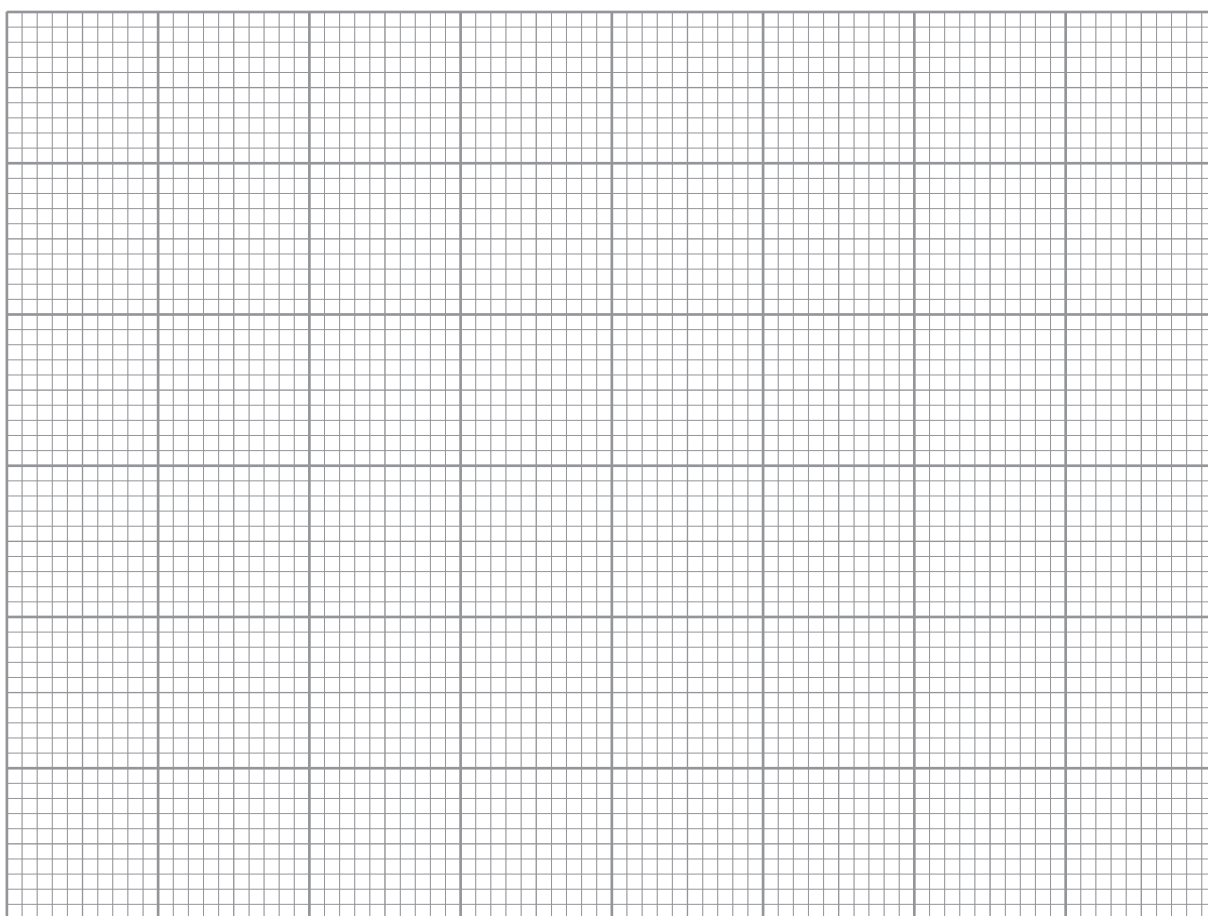
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- (ii) On the graph paper below, plot a line graph to represent the data in the frequency table (Figure 1.). [4]



- (iii) Draw **one** conclusion from the line graph you have drawn in (c)(ii). [2]

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7. A university professor was interested in why people wear make-up. Her friend claimed that wearing make-up improved their confidence. The professor randomly selected 20 students who were studying at the university where she worked. She asked the participants to record their confidence score at midday on one day when they were wearing make-up and one day when they were not wearing make-up. The participants rated their confidence score using a 11 point scale (0 = no confidence to 10 = extremely confident). The professor's research hypothesis was:

Participants will record a higher confidence score when wearing make-up than when not wearing make-up.

- (a) (i) Explain why the professor's choice of using a directional hypothesis may be inappropriate in this research. [2]

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- (ii) State an operationalised null hypothesis that the professor might use in this research. [2]

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- (b) (i) Explain how the professor could have used random sampling in this research. [2]

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- (ii) Explain **one** strength of using random sampling in this research. [2]

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- (iii) Explain **one** weakness of using random sampling in this research. [2]

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- (c) A colleague of the professor is concerned that the confidence scores may not be reliable. Explain how the professor could use test-retest to assess the reliability of her findings in this research. [2]

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- (d) (i) Explain **one** strength of conducting this research in the field. [2]

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- (ii) Explain **one** weakness of conducting this research in the field. [2]

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- (e) (i) Explain why the risk of stress, anxiety, humiliation or pain, may be an ethical issue in this research. [2]

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- (ii) Explain **one** way in which the professor could deal with the ethical issue of risk of stress, anxiety, humiliation or pain, in this research. [2]

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- (f) Identify and fully justify an inferential statistical test that could be used to analyse the data in this research. [1 + 3]

Examiner
only

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END OF PAPER



