

Section E Research methodsAnswer **all** questions in the spaces provided.**Total for this question: 20 marks**

- 5** A psychology teacher had an idea that students who study drama are more extravert than students who do not study drama. She wanted to find out whether or not this is true and decided to conduct an experiment. This is what she did.
- She asked all 30 members of her Year 11 psychology class whether or not they studied drama. She discovered that half of her class did study drama.
 - After obtaining their consent to take part in the experiment, she asked every member of her class to complete the EPI (a personality test). The test measures extraversion. The higher the score, the more extravert a person is.
 - She calculated the mean extraversion score for the students who studied drama and the mean extraversion score for the students who did not study drama.

- 5 (a) (i)** Identify the independent variable in this investigation.
(Tick the correct box.)

The EPI (a personality test)

The extraversion score for each student

Whether or not the students studied drama

(1 mark)

- 5 (a) (ii)** Identify the dependent variable in this investigation.
(Tick the correct box.)

The EPI (a personality test)

The extraversion score for each student

Whether or not the students studied drama

(1 mark)

Question 5 continues on the next page**Turn over ►**

5 (b) Write a suitable hypothesis for this study.

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(2 marks)

The results of the study are shown in **Table 1**.

Table 1: The mean extraversion scores out of 50 for students who studied drama and for students who did not study drama

	Students who studied drama	Students who did not study drama
Mean extraversion score	40	20

5 (c) Use the graph paper below to display the mean extraversion scores shown in **Table 1**.

Provide a suitable title and fully label your graph.

Title:



(5 marks)



5 (d) (i) Do the results of the investigation provide support for what the psychology teacher was trying to find out? (*Tick the correct box.*)

Yes	
No	

(1 mark)

5 (d) (ii) Explain the reason for your answer to **5(d)(i)**. Refer to the aim and results of the study in your explanation.

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(3 marks)

5 (e) Read the following descriptions of sampling methods.

Those selected are members of the target population who happen to be available to take part.	
Every member of the target population has an equal chance of being selected.	
Different subgroups of the target population are identified and then participants are selected from the subgroups in proportion to their numbers in the target population.	
Every fifth member of the target population is selected for the sample.	

From the following list of terms, choose the one that matches **each** description and write either **A, B, C** or **D** in the box next to it. Use each letter only once.

- A** Random
- B** Opportunity
- C** Systematic
- D** Stratified

(3 marks)

Question 5 continues on the next page

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5 (f) Outline **one** advantage and **one** limitation of stratified sampling.

Advantage

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Limitation

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(4 marks)

Extra space

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END OF QUESTIONS

