



Immanuel College

Specimen paper for entry into Year 12

Psychology

Time allowed: 1 hour

Total Marks: 23

Answer ALL questions

on lined paper

PART A: Nature/Nurture debate:

"Some are born great, some achieve greatness, and some have greatness thrust upon them" (William Shakespeare, Twelfth Night: act II, scene V). The nature versus nurture represents a debate in Psychology.

1. Using Shakespeare's quote as a clue, can you separate the following list of words into two groups? (4 marks)

Culture, nature, learned, inherited, genetic, environmental, innate, biological, social, hereditary, nurture.

2. In no more than 50 words, explain how you decided on the make-up of your two word groups. Try to avoid using any of the above listed words in your explanation.

(4 marks)

PART B:

Please read the article and answer the questions below.

Question 4 is an opportunity for you to show any knowledge you may already have of Psychology.

Neuroscientist Jim Fallon, at Irvine, University of California, scanned his own brain, along with the brains of his colleagues, to use as a control group of "normal" brains and found that his brain scan was that of a murderer. Years before, his research had looked for brain differences in serial killers, so he recognised the pattern in his scan as soon as he saw it. He was intrigued and set out to investigate his family history, only to discover the large number of killers and serial killers in his ancestry. Jim Fallon's findings can be linked to a recent court case in Italy. Stephania Albertani was on trial for murdering her sister and then planning to murder her parents. Upon viewing a scan of Albertani's brain and comparing it to those of ten healthy women, neuroscientists and geneticists appealed and Albertani's prison sentence was reduced from life to 20 years. This is highly controversial, not least because of Jim Fallon's findings. His brain is also "abnormal" and "abnormal" in a pattern which fits with serial killing tendencies, yet he has never killed anyone. Thus, psychologists must ask: can we overcome our brain pattern tendencies? The issue here is freewill versus determinism. To what extent do we shape our lives with the choices we make or, on the opposite end of the spectrum, how much of who we are is predetermined by the genes we are born with and the situations we are born into?

- 1) What did Jim Fallon think caused some people to become serial killers?
(2 marks)
- 2) Why did neuroscientists compare Stephania Albertani's brain scan to brain scans of "ten healthy women"?
(3 marks)
- 3) Other than genetics, suggest another reason why people behave in different ways.
(6 marks)
- 4) Write at least a paragraph which explains what you think you will find interesting about studying Psychology at A-level.

PART C

A study tested map reading skills in 20 men and 20 women and the researchers obtained the following data:-

Male map reading scores	17, 20, 13, 12, 13, 11, 8, 17, 12, 15, 14, 18, 20, 17, 17, 15, 13, 10, 5, 9.
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Female map reading scores	12, 8, 10, 11, 4, 2, 11, 18, 17, 12, 13, 10, 3, 15, 11, 9, 10, 11, 16, 10.
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The mean map reading score for both groups together was 12.23.

What percentage of the male group scored above the mean score and what percentage of the female group scored above the mean score? Show your calculations.

(4 marks)