

## Biological Approach – Questions by Topic

### Q1.

(a) What is meant by *genotype*?

(1)

(b) What is meant by *phenotype*?

(1)

(Total 2 marks)

### Q2.

A recent study showed that Alzheimer's disease may be partly inherited.

John's father suffered from Alzheimer's disease. John is keen to get genetically tested to see if he will develop Alzheimer's disease.

Explain why John's genotype will **not** reveal whether he will suffer from Alzheimer's disease.

(Total 4 marks)

### Q3.

In a study of tooth decay, researchers checked the dental records of 100 pairs of identical twins. They recorded the number of fillings for each twin and found the following data:

Twin pairs with the same number of fillings	Twin pairs with different number of fillings
48	52

Use your knowledge of genotype and phenotype to explain the data in the table above.

(Total 4 marks)

### Q4.

Rita and Holly are identical twins who were separated at birth. When they finally met each other at the age of 35, they were surprised at how different their personalities were. Rita is much more social and out-going than Holly.

Use your knowledge of genotype and phenotype to explain this difference in their personalities.

(Total 4 marks)

### Q5.

Outline the behaviourist approach. Compare the behaviourist approach with the biological approach.

(Total 16 marks)