

GCSE Biology B (Twenty First Century Science)
J257/01 Breadth in Biology (Foundation)

Question Set 18

Multiple Choice Questions

1. Bacterial cells are used in a process called genetic engineering to make human insulin.

(a) Define the term 'genetic engineering'

[2]

(b) What condition could the insulin produced in this process be used to treat?

[2]

(c) Bacteria were first used to produce human insulin in 1978. Before that, pig insulin was used to treat people who did not make their own insulin.

Suggest **two** reasons why it is better to use insulin produced by bacteria rather than pigs.

[2]

(d) Insulin is a protein.

What is a protein made from?

Tick (✓) **one** box.

Amino acids

Fatty acids

Glucose

Glycerol

[1]

Total Marks for Question Set 18: 7

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