

**GCSE Biology A (Gateway)**

**J247/01 B1-B3 and B7 Foundation (Foundation Tier)**

**Question Set 22**

1 (a) (i) Diabetes occurs when blood sugar levels are not controlled.

Which hormone reduces blood sugar levels?

[1]

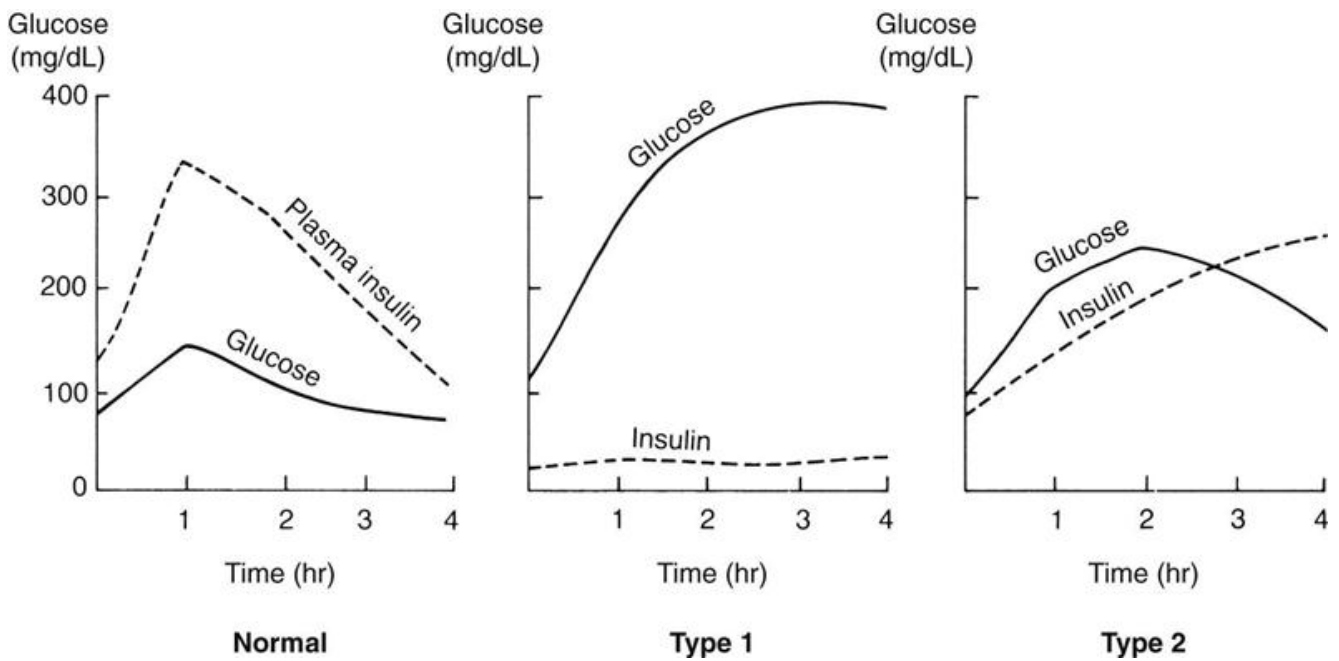
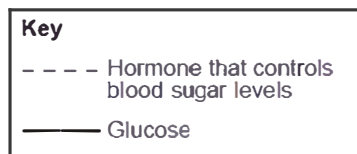
(ii) Hormones are produced in endocrine glands.

Describe how hormones control different parts of the body.

[2]

(iii)\* A glucose tolerance test can help identify if a person has diabetes.

The graphs show a glucose tolerance test in three people A, B, and C.



One person is healthy and the other two people have different types of diabetes.

Explain the differences between the three graphs and describe how each person with diabetes could control their blood glucose levels.

Use information from the graphs in your answer.

**[6]**

**(b)** Diabetes can often result in high levels of glucose in the urine.

Which organ usually prevents glucose being lost from the blood when urine is made?

**[1]**

**(c)** Drugs can be used to treat one type of diabetes. One drug prevents an enzyme working properly.

Suggest how a drug can stop an enzyme working.

**[2]**

**Total Marks for Question Set 22: 12**

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