

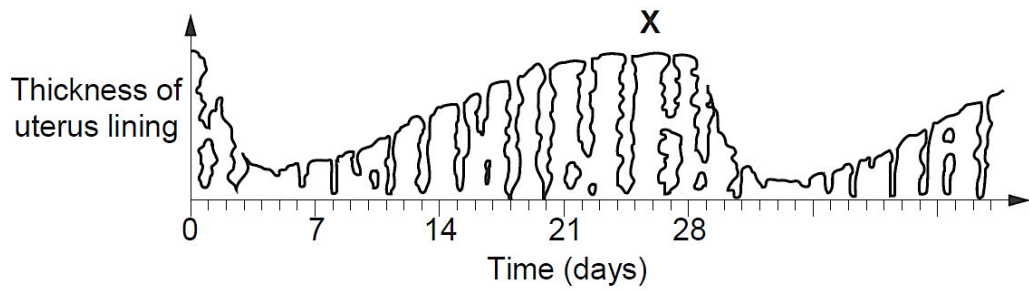
**GCSE Biology A (Gateway)**

**J247/03 B1-B3 and B7 Higher (Higher Tier)**

**Question Set 17**

1 (a)

Look at the diagram. It shows changes to the uterus lining during the menstrual cycle.



(i) Which hormone would peak at point X? [1]

(ii) Name **two** hormones that peak immediately before ovulation. [1]

(b) Explain how hormones can be used by women for contraception [4]

(c) Which hormone works with insulin to control blood sugar levels in the body?

Tick (✓) **one** box.

Gibberellin

Glucagon

Glucose

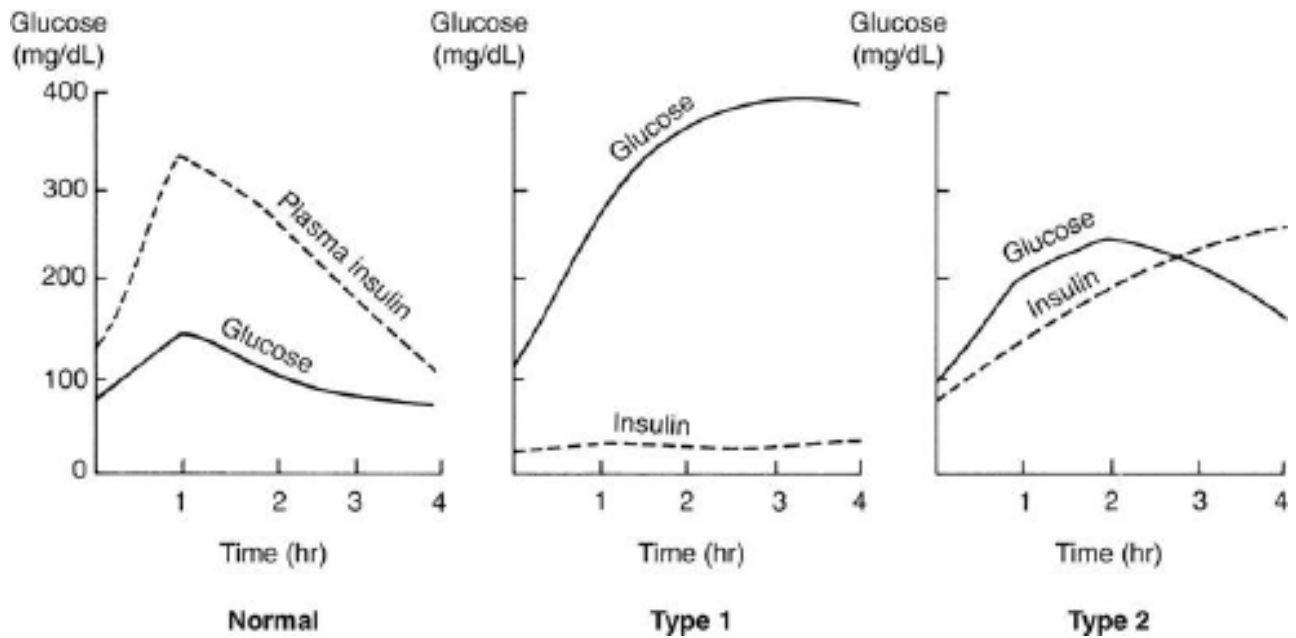
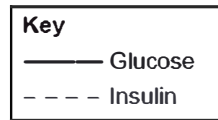
Glycogen

[1]

(d) A glucose tolerance test can help identify diabetes.

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

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



(i) Which person has **type 2** diabetes?

[1]

(ii) Explain the reasons for your choice in part (d)(i).

[2]

(e) Scientists are using human embryonic stem cells to grow cells to treat type 1 diabetes.

Explain why scientists use embryonic rather than adult stem cells.

[2]

(f) Plant development is also controlled by hormones.

Describe **one** effect of gibberellins and **one** effect of ethene on plant development.

[2]

**Total Marks for Question Set 17: 14**

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