

Foundation Separate version — Higher Tier (★) questions removed.

**Q1. Explain the hormonal response when blood glucose rises above normal after a meal.**

[4 marks]

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**Q2. Compare Type 1 and Type 2 diabetes in terms of cause, mechanism and treatment.**

[4 marks]

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**Total: 8 marks**

**Q1 (4 marks)**

*Explain the hormonal response when blood glucose rises above normal after a meal.*

- Pancreatic beta cells detect high blood glucose [1]
- Insulin is secreted into the blood [1]
- Insulin causes cells to take up glucose; liver converts glucose to glycogen (glycogenesis) [1]
- Blood glucose falls back to normal — insulin secretion decreases [1]

**Q2 (4 marks)**

*Compare Type 1 and Type 2 diabetes in terms of cause, mechanism and treatment.*

- Type 1: autoimmune — beta cells destroyed → no insulin produced [1] → requires insulin injections [1]
- Type 2: body cells become resistant to insulin (still produced) [1] → managed with diet, exercise, weight loss [1]