

Name: _____

Date: _____

Section 1: The Control Centre

1. Which organ in the body is responsible for monitoring and controlling blood glucose concentration? (1 mark)

2. Identify the two main hormones produced by this organ to regulate glucose levels: (2 marks)

Hormone A: _____ Hormone B: _____

Section 2: Hormone Action

3. When blood glucose levels are too high, insulin is released. Describe what happens to the glucose in the blood. (2 marks)

4. Define the term 'Glycogen': (1 mark)

5. Explain how glucagon works when blood glucose levels fall too low (e.g., during exercise). (3 marks)

Section 3: Diabetes

6. Complete the table below to compare Type 1 and Type 2 diabetes: (4 marks)

Feature	Type 1 Diabetes	Type 2 Diabetes
Cause		
Common Treatment		

TEACHER ANSWER KEY (AQA Mark Scheme)

Q1: The Pancreas.

Q2: Insulin and Glucagon.

Q3: Insulin causes glucose to move from blood into cells (1); glucose is converted to glycogen for storage in the liver/muscles (1).

Q4: Glycogen is a storage carbohydrate made of glucose molecules.

Q5: Pancreas detects low levels and releases glucagon (1); Glucagon travels to the liver (1); Glycogen is converted back into glucose and released into the blood (1).

Q6: Type 1 Cause: Pancreas fails to produce insulin. Type 2 Cause: Cells no longer respond to insulin. Type 1 Treatment: Insulin injections. Type 2 Treatment: Carbohydrate-controlled diet/exercise.