

AQA, OCR, Edexcel

GCSE Science

GCSE Biology

**Control of Blood Glucose
Concentration Answers**

Name:

M M E

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Total Marks: /19

Q1: What is diabetes?

A= Inability to control the bodies insulin levels.

(1 mark)

Q2: Discuss the ways a patient with type 2 diabetes can control their condition.

A= 1 mark for each of the following:

- Diet – Controlled/ low carbohydrate
- Losing weight
- Regular exercise

(3 marks)

Q3: Explain how the injection of insulin affects the body.

A= Accept any 3 of the following:

- Cells take in
- Glucose converted to glycogen
- Prevents excessive glucose levels
- Stabilises blood glucose levels

(3 marks)

Q4: Discuss how scientists aim to treat diabetes in the future.

A= accept one of the following:

- Genetic Engineering
- Pancreatic cells

(1 mark)

Q5: What drugs must Doctors give if patients have a pancreatic transplant?

A= Immunosuppressant's

(1 mark)

Q6: Discuss the differences between type 1 and type 2 diabetes.

A= 1 mark for each diabetes type:

- Type 1 – Don't produce enough insulin
- Type 2 – Cells no longer respond to insulin

(2 marks)

Q7: Why does a person with Type 1 diabetes needs to be careful when exercising?

A= Accept any 2 of the following:

- Need to keep glucose levels stable
- When exercising use more glucose rapidly
- Increasing respiration
- Can end up with excess or low glucose levels

(2 marks)

Q8: Give one of the common causes of type 2 diabetes.

A= Accept 1 of the following:

- Obesity / Overweight
- Old age

(1 mark)

Q9: If left untreated, what can happen to a patient with Type 1 diabetes?

A= Accept 1 of the following:

- Coma
- Waste away
- Death

(1 mark)

Q10: Explain how drugs to treat type 2 diabetes work.

A= Accept 2 of the following:

- Aid cells insulin use
- Help pancreas produce more insulin
- Reduce glucose absorption in gut

(2 marks)

Q11: How often should a person with Type 1 diabetes inject insulin as a minimum each day?

A= Once a day

(1 mark)

Q12: What happens to a person with Type 1 diabetes blood sugars shortly after eating a meal?

A= Rapid increase, unless they are managing their blood glucose with insulin

(1 mark)