

AQA, OCR, Edexcel

GCSE Science

GCSE Biology

Enzyme Answers

Name:

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E

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Total Marks: /18

Q1: What is an enzyme?

A= Biological catalyst

(1 mark)

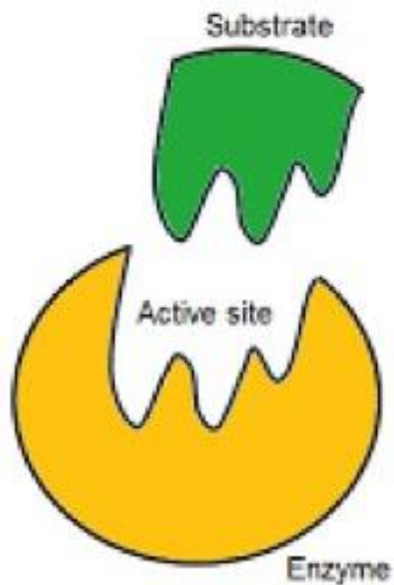
Q2: Describe the structure of an enzyme?

A= 1 mark for each of the following:

- Long chain of amino acids
- Folded
- Unique active site

(3 marks)

Q3: Draw and label the active site on an enzyme.



A= award mark for a commentary shape

(1 mark)

Q4: What do enzymes do to the rate of reaction?

A= Increase the rate of reaction (speed it up)

(1 mark)

Q5: Discuss the main metabolic reactions enzymes are involved in.

A= 1 mark for each of the following:

- Build large molecules – e.g. starch
- Change one molecule to another – e.g. glucose to fructose
- Breakdown large molecules

(3 marks)

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Q6: What term is used to describe an enzyme that no longer works due to temperature changes?

A= Denatured

(1 mark)

Q7: Discuss the effects of pH on enzyme action.

A= Accept any 3 of the following:

- Changes shape of molecule
- Changes active site
- Active site no longer works
- Cant perform function

(3 marks)

Q8: What are fats broken down into and by which enzyme?

A= 1 mark for each of the following:

- Fatty acids and glycerol
- Lipase

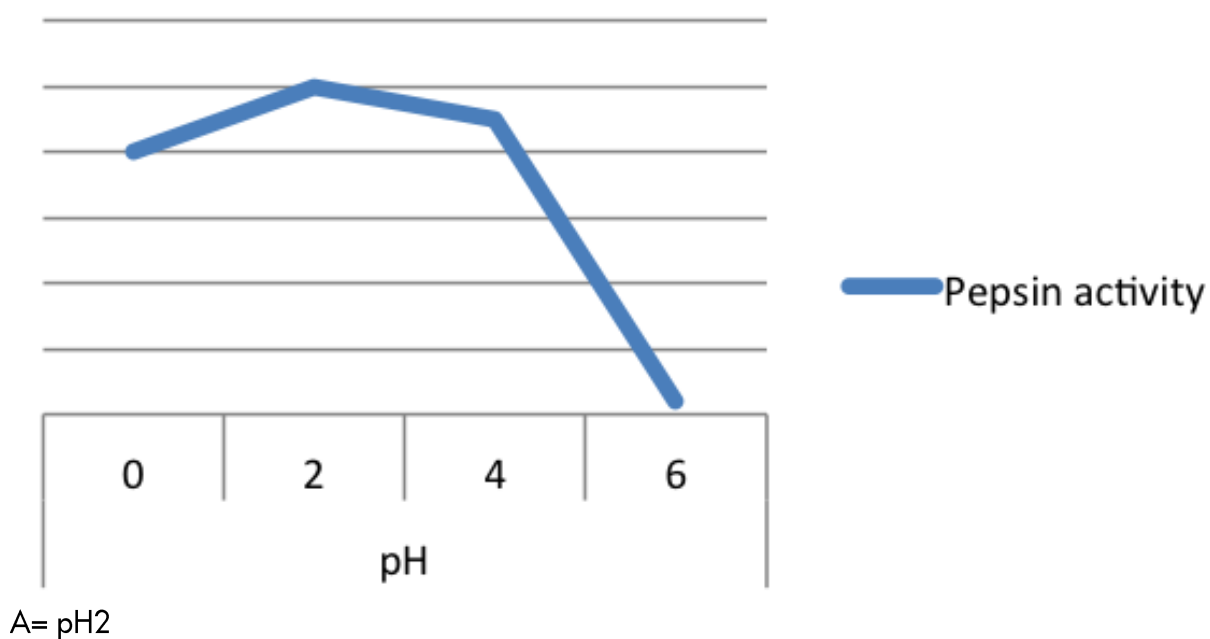
(2 marks)

Q9: What enzyme breaks down carbohydrates.

A= Amylase

(1 mark)

Q10: Using the graph below what is the optimum pH for pepsin.



(1 mark)

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Q11: Proteases are digestive enzymes, where in the digestive system are they found?

A= Stomach/ Pancreas/ Small intestine

(1 mark)