

# Step Academy official

Model Town Grw PH: 03016652757

STUDENT NAME	
PAPER CODE	27447
TIME ALLOWED	40
Paper Date	05-02-2026



CLASS	New 1st Year (FSC/ICS)
SUBJECT	Biology
TOTAL MARKS	25
Paper Type	

## Q1. Choose the correct answer.

5X1=5

1. Which of the following enzymes are found dissolved in cytoplasm?

(A) Enzymes of Calvin cycle      (B) Enzymes of protein synthesis      (C) Enzymes of glycolysis      (D) Enzymes of Krebs cycle

2. What role do enzymes play in chemical reactions?

(A) They increase the activation energy required	(B) They act as substrates for reactions	(C) They speed up reactions by lowering activation energy	(D) They are permanently consumed in reactions
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3. What determines the specificity of an enzyme?

(A) The size of the enzyme	(B) The shape of the enzyme's binding	(C) The temperature of the environment	(D) The color of the enzyme
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4. What determines whether an inhibitor is reversible or irreversible?

(A) The presence of substrate	(B) The enzyme's temperature tolerance	(C) The type of bond formed with the enzyme	(D) The number of products formed
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5. What reaction do isomerases catalyse?

(A) Oxidation	(B) Transfer of phosphate	(C) Intra-molecular rearrangement	(D) Hydrolysis
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## Q2. Write short answers of the following questions.

5X2=10

1 . How and where are enzymes synthesized?

2 . What are the key postulates of the Lock-and-Key model?

3 . How are inhibitors classified based on the type of bond formation with enzymes?

4 . What are irreversible inhibitors and how do they act?

5 . How do lipases function and what is an example?

## Q3. Write detailed answers of the following questions.

2X5=10

1 . Categorize inhibitors into competitive and non-competitive inhibitors.

2 . Classify enzymes on the basis of the reactions catalysed.