Exam. Code : 107404
Subject Code : 2148

B.Sc. (Bio-Technology) Semester—IV

ENZYMOLOGY

Paper—BT-8

Time Allowed—3 Hours] [Maximum Marks—40

SECTION—A

Note :— Attempt ***all*** questions from this section. 1×8=8

1. Define the following in not more than ***five*** lines each :
   (a) Apoenzyme
   (b) Rate of reaction
   (c) Allosteric enzyme
   (d) Ribozyme
   (e) Uncompetitive inhibitor
   (f) Feedback inhibition
   (g) Lyase
   (h) Thermodynamic equilibrium.

SECTION—B

Note :— Attempt any ***five*** questions from this section. 4×5=20

2. Classify enzymes based on their mechanism of action.
3. Explain lock and key model of enzyme specificity.

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4. Give the functions of enzyme in any biochemical reaction.
5. List four ways in which enzyme activity is generally regulated and give an example of each.
6. What are isozymes ? Support your answer with suitable example.
7. What is activation energy ? How does the activation energy change in the presence and absence of enzymes ?
8. Differentiate between active and allosteric site.
9. Explain acid base catalysis with suitable diagram(s).

SECTION—C

Note :— Attempt any ***two*** questions. 6×2=12

10. What are co-enzymes ? Define their role in enzyme action.
11. Explain ping-pong enzyme mechanism with example.
12. What is mixed inhibition ? Explain the effect of such inhibitor an enzyme velocity.
13. Describe in detail the industrial application of enzymes.

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