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Sixth Semester B.E. Degree Examination, June/July 2024 Enzyme Technology

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. What is an Enzyme? Explain the classification of enzyme in detail. (10 Marks)
- b. What are the different sources of enzymes? Explain the strategy of purification of enzymes. (10 Marks)

OR

- 2 a. Discuss in brief about the advantages of enzymes in different industry. (10 Marks)
- b. Explain the advantages of biocatalyst over chemical catalyst. (10 Marks)

Module-2

- 3 a. Explain Fixed-incubation and Kinetic methods in detail. (10 Marks)
- b. Define Immuno array. Explain the enzyme immune array techniques in detail. (10 Marks)

OR

- 4 a. Explain the standardization and optimization methods for enzymes. (10 Marks)
- b. Explain the mechanism of NAD, Co – enzyme A and biotin enzymes. (10 Marks)

Module-3

- 5 a. Define Immobilized enzymes. Explain the different techniques of immobilization in detail. (10 Marks)
- b. Explain the kinetics of Immobilized enzymes. (10 Marks)

OR

- 6 a. Explain the application of immobilized enzyme in detail. (10 Marks)
- b. Discuss Economic argument for immobilize enzyme. (10 Marks)

Module-4

- 7 a. Discuss the designing and construction of novel enzymes. (10 Marks)
- b. Explain Host guest complication chemistry. (10 Marks)

OR

- 8 a. Explain Therapeutic enzymes with examples. (10 Marks)
- b. Explain GPD and IRT Isoenzymes in detail. (10 Marks)

Module-5

- 9 a. Explain the significance of enzymes in diagnostics. (10 Marks)
- b. Discuss the enzyme pattern in diseases like myocardial infraction. (10 Marks)

OR

- 10 a. Explain the methods involved in production of glucose syrup. (10 Marks)
- b. Explain the uses of lactase in dairy industries. (10 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.