Reg. No. | | | | | | | | | |

BFTFTC 383

Choice Based Credit System VI Semester B.Sc. (FT) Degree Examination, September 2022
(2021 – 22 Batch Onwards)
FOOD TECHNOLOGY
Enzyme Technology

Time : 3 Hours Max. Marks : 80

PART – A

1. Answer **any ten** of the following. **(2×10=20)**
   a) Mention any two properties of enzymes.
   b) What is enzymatic saccharification ?
   c) What is an active site of an enzyme ?
   d) Any two advantages Biocatalysis.
   e) Advantages of isolated enzyme.
   f) What is bioenergetics ?
   g) Significance lactose free milk.
   h) List the uses of heat stable alpha amylases.
   i) What is the role of trans glutaminase ? Mention its importance.
   j) Mention causes of enzyme specificities.
   k) What is 'V_{max}' ?
   l) List any two uses of Xylases.

PART – B

Answer **any four** of the following, choosing **one full** question from **each** Unit.

Unit – I

2. a) Write a note on nomenclature of enzymes. **(3+5+7=15)**
   b) How enzyme activity is measured ? Explain.
   c) Give a detailed account on enzyme purification methods.

OR

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3. a) Write a note on properties of enzymes. **(3+5+7=15)**
   b) What are Allosteric enzymes ? Describe the mechanism of their regulation.
   c) Discuss the factors responsible for rate enhancement of enzyme activity.

Unit – II

4. a) Describe basic principles of enzyme assays. **(4+4+7=15)**
   b) Describe direct and kinetic method of enzyme activity.
   c) Give a detailed account on applications of enzyme immobilization.

OR

5. a) Under which circumstances whole cell enzymes are used ? Explain. **(4+4+7=15)**
   b) Write a note on economic arguments for enzyme immobilization.
   c) Discuss the design of immobilized enzyme reactors.

Unit – III

6. a) Write a note on enzymatic saccharification process. **(4+4+7=15)**
   b) Describe importance of glucoamylases.
   c) Discuss the applications of enzymes in starch hydrolysis.

OR

7. a) Write a note on mechanism of action of enzyme lipase. **(4+4+7=15)**
   b) Describe the mechanism of action of pullulanase.
   c) Give a detailed account on application of enzymes in baking process.

Unit – IV

8. a) Explain the importance of carbohydrates. **(3+5+7=15)**
   b) What is bromelain ? Describe its role in meat processing.
   c) Discuss the role of protease in cheese making.

OR

9. a) Write a note on tyrosinases and its sources. **(3+5+7=15)**
   b) Explain sources and applications of elastace.
   c) Discuss the pectic enzymes and their applications.
