

Model Question Paper
Fifth Semster B.Tech degree Examination
13.506.1(ELECTIVE I) BIOCHEMICAL ENGINEERING (H)
CHEMICAL ENGINEERING BRANCH
(2013 Scheme)

PART - A

Answer all questions.

1. Explain kingdom protist
2. Differentiate between molds and yeasts
3. Define lipids. Explain different types of lipids
4. Explain glycosidic linkage in polysaccharides
5. Discuss the factors which influences the enzyme activity
6. Distinguish between substrate activation and inhibition
7. Give an account of enzyme immobilization?
8. Give the importance of ATP And NAD in living systems
9. Which are the methods available for measuring and monitoring growth process?
10. Write a note on gas liquid mass transfer in cellular system

(10 x2 = 20
marks)

Module 1

11. a) What are nucleic acids . Describe the structure of DNA
14
- b) Write different types of RNA s 6
12. a) What are proteins ? How are they classified?
12
- b) Give in detail the biological functions of protein
8

Module 2

13. Explain the evaluation of competitive and non -competitive inhibition of an enzyme catalysed reaction.
20
14. Derive Michaelis -Menten equation for enzyme catalysed reactions .how do you evaluate graphically the parameters of the above equation.
20

Module 3

15. Describe the methods of immobilization with suitable examples
20
16. a) Discuss the respiration cycles
5
- b) With a flow sheet explain carbon catabolism EMP pathway
15

Module 4

17. define sterilization. discuss different types of reactors for sterilization
20
18. a) Describe the transport phenomena in bioprocess system
10
- b) discuss the basic mass transfer concepts associated with freely falling or rising bubble in a bioprocess system
10