

R

Exam.Code:0905
Sub. Code: 6195

2123

**B.E. (Biotechnology), First Semester
ESBT-101: Basic Biology**

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Section.

x-x-x

1.
 - a. Define biotechnology.
 - b. What is evolution?
 - c. What is the role of lysosomes?
 - d. What happens during metaphase stage of mitosis?
 - e. Name any one harmful micro-organism.
 - f. Name anyone Non-covalent bond found in proteins.
 - g. Define carbohydrate?
 - h. Name any one water insoluble vitamin.
 - i. What are enzymes?
 - j. Name any one application of biotechnology in food industry.

(1 each)

SECTION-A

2.
 - a. What is the scope of biotechnology? Explain briefly. (4)
 - b. Explain the theories of evolution. Also illustrate organic evolution. (6)
3.
 - a. Give an account of the beneficial micro-organisms. (5)
 - b. Give the differences between prokaryotic and eukaryotic cell. (5)
4.
 - a. Explain the structure and function of mitochondria with the help of a schematic diagram. (5)
 - b. Explain the different stages of mitosis, with the help of a schematic diagram. (5)

SECTION-B

5.
 - a. Write a short note on bioremediation. (5)
 - b. Describe the basis of classification of enzymes. (5)
6.
 - a. Describe the applications of biotechnology in the medical field. (5)
 - b. Illustrate the types of bonds and interactive forces found in any one of the nucleic acids. (5)
7.
 - a. Write a short note on proteins. (5)
 - b. Write a short note on porphyrins. (5)

x-x-x