

B.Tech I Year II Semester (R15) Supplementary Examinations December 2019

BASIC MICROBIOLOGY

(Food Technology)

Time: 3 hours

Max. Marks: 70

PART – A
(Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
- (a) Classify the types of microorganisms.
 - (b) Give the concept of phase contrast microscope.
 - (c) Draw the structure of E.coli.
 - (d) Illustrate recombinant process in microbes.
 - (e) What is meant by bacterial transduction?
 - (f) Give the types of mutation.
 - (g) Define mutagenesis.
 - (h) Give the phenotypes of bacterial mutants.
 - (i) Classify the structure of viruses.
 - (j) Mention the virus multiplication steps.

PART – B
(Answer all five units, 5 X 10 = 50 Marks)**UNIT – I**

- 2 Explain the theory, instrument design and working of scanning electron microscope.

OR

- 3 State the characteristics and explain the morphology and reproduction of algae.

UNIT – II

- 4 Classify the types of bacteria based on their structure and explain their morphologies.

OR

- 5 Give a detailed account on bacterial genetics and recombination methods.

UNIT – III

- 6 Classify types of microbial mutation and explain their process steps.

OR

- 7 Discuss on mutation rate and explain the repairing of mutation process.

UNIT – IV

- 8 Narrate the steps of replication and multiplications of virus.

OR

- 9 Elaborate the evolution and scope of microbiology.

UNIT – V

- 10 Explain the factors affecting the growth of microorganisms with neat illustration.

OR

- 11 Illustrate and explain the various cell culture methods of isolation and preservation.
