

CBCS Scheme

USN

--	--	--	--	--	--	--	--	--	--

15BT34

Third Semester B.E. Degree Examination, Dec.2017/Jan.2018 Microbiology

Time: 3 hrs.

Max. Marks: 80

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

Module-1

- 1 a. Define Microbiology and Recall various basic and applied areas of Microbiology. (08 Marks)
b. Summarize the notable contributions of five researchers in the golden age of microbiology. (08 Marks)

OR

- 2 a. Compare and differentiate between Prokaryotes and Eukaryotes. (08 Marks)
b. Outline the general features of Spirochetes and Rickettsiae. (08 Marks)

Module-2

- 3 a. Demonstrate the working principle of phase contrast microscope with neat labeled sketch. (08 Marks)
b. Rephrase various staining techniques and also discuss Endospore staining and Acid fast staining. (08 Marks)

OR

- 4 a. Illustrate the working principle of Transmission Electron Microscope, with a neat labeled diagram. (08 Marks)
b. What is Disinfection? Recall different types of sterilization using chemicals. (08 Marks)

Module-3

- 5 a. Summarize microbial growth and microbial growth curve. (08 Marks)
b. Classify various metabolites, explain how they are produced with suitable examples. (08 Marks)

OR

- 6 a. Infer on various physical conditions required for growth of micro organisms. (08 Marks)
b. Outline various products formed and steps in glycolysis with the help of a line diagram. (08 Marks)

Module-4

- 7 a. Contrast the causative organism, symptoms, route of infection, laboratory diagnosis and treatments for tuberculosis. (08 Marks)
b. Summarize the causative organism, symptoms, route of infection, laboratory diagnosis and treatments for hepatitis. (08 Marks)

OR

- 8 a. Rephrase the causative organism, symptoms, route of infection, laboratory diagnosis and treatments for plague. (08 Marks)
b. Demonstrate the malarial life cycle in detail. (08 Marks)

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.

15BT34

Module-5

- 9 a. Explain the importance of Biofertilizers, with a note on VAM and Rhizobium. (08 Marks)
b. Outline the steps in sewage disposal and application of micro organisms. (08 Marks)

OR

- 10 a. Assess the role of various biogeochemical cycles in environment. Conclude your answer with the help of Nitrogen cycle. (08 Marks)
b. Explain the production of penicillin by the application of microorganisms. (08 Marks)
