

April - 2015

B.Sc. Examination

Semester - III

Paper Name: Mi-301-Introduction to microbiology

PaperCode: 3791

Time: 2:30 Hours

Total Marks: 70

Instructions: (a) Figure to the right indicates total marks of respective question.
(b) Draw neat, clean and labeled diagram wherever necessary.

- 1.(a) Discuss: The golden period of microbiology. 10
1.(b) Explain: Spontaneous generation conflict in brief. 04

OR

- 1.(a) Explain: Theory of biogenesis and abiogenesis. 10
1.(b) Discuss: Applied areas of microbiology. 04
2.(a) Discuss: Compare and contrast between TEM and SEM. 10
2.(b) Explain: Fixation and its types. 04

OR

- 2.(a) Describe: Different types of staining & their applications. 10
2.(b) Explain: Bright field microscopy. 04
3.(a) Describe different shapes, sizes and arrangement of bacterial cells. 10
3.(b) Write a short note on: Protoplast. 04

OR

- 3.(a) Define capsule. Explain in detail bacterial capsule with its function. 10
3.(b) Explain: The difference between true motility & Brownian motility. 04
4.(a) Explain: Germ theory of fermentation & contributions of Louis Pasteur. 10
4.(b) Discuss: Koch's postulates. 04

OR

- 4.(a) Explain: Distribution of microorganisms in nature. 10
4.(b) Discuss: Contribution of Antony Van Leuwenhoeck. 04
5.(a) Differentiate various bacteria depending on their cell wall & write functions of cell wall. 10
5.(b) Explain: types of spores. 04

OR

- 5.(a) Discuss: Fluorescence microscopy. 10
5.(b) Explain: Bacterial sporulation in brief. 04