

Unique Paper Code (UPC) : 32531102-OC
Name of the Paper : Bacteriology
Name of the Course : B.Sc. (Hons.) Microbiology
Semester : 1
Duration : 4 hours including time taken for downloading
question paper and uploading answer sheets
Maximum marks : 75

On first page, please write the following details:

1. Date and time of examination (DD/MM/YYYY, Hours:Min)
2. Examination Roll Number
3. Name of the Program, i.e. B.Sc. (H) Microbiology
4. Semester
5. Unique Paper Code (UPC)
6. Title of the Paper
7. Name of the College
8. Email ID of the student
9. Mobile Number of the student

SET 1

Attempt any **four** questions. **All** questions carry equal marks. Please write your answers on A4 size sheets and put page numbers at the top of each page

Q 1. Some bacteria are able to survive under unfavourable conditions due to the formation of special resistant structures inside their cells. What is this structure called and what are its special features? Give some examples of bacteria which form such resistant structures, and diagrammatically depict the stages of its formation. 18.75

Q 2. Bacteria which cannot survive under aerobic conditions require special methods for their cultivation, explain in detail the methods used for the culturing of such bacteria. 18.75

Q 3. Explain the various methods of asexual reproduction in bacteria. Discuss in detail two physical methods to control bacterial growth. 10.75+8

Q 4. How archaea are different from eubacteria? Give examples of any two genera from each group along with their important characteristics. 9+9.75

Q 5. What is the relevance of surface area to volume ratio of bacteria? Discuss the effect of two antibiotics on the cell wall. Comment on the mode of action of lysozyme on bacterial cell wall. 4.75+8+6

Q6. How is nutrition provided to bacteria in the laboratory – explain with reference to any two specific media. What are the different categories of bacteria based on their nutritional requirements? 8 +10.75