

Unique Paper Code (UPC) : 32531328

Name of the Paper : Environmental Microbiology

Name of the Course : B.Sc. (Hons.) Microbiology

Semester : 3

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 sheets and put the page numbers on the top of each sheet

- 1 There are some extreme habitats on the earth that challenge the ability of microorganisms to survive and grow. Discuss any four such habitats giving suitable examples of microorganisms found in them and the mechanisms they possess for surviving and growing in such extreme habitats. 18.75
- 2 Why is sewage treatment necessary? Explain how an anaerobic sludge digester and an activated sludge process are used to treat sewage. 18.75
- 3 Describe any three methods of solid waste disposal, write their advantages and

- disadvantages too. 18.75
- 4 Discuss any three different types of microbe-animal interactions that you have studied. 18.75
- 5 What is bioremediation? Explain the role of microbes in plastic degradation and the clean up of oil spills in aquatic ecosystems. 18.75
- 6 Elucidate the different steps of Nitrogen cycle highlighting the microbes involved in each step. 18.75