

7. (a) Describe the ecological and economic importance of lichens. 3  
 (b) Discuss the life history of *Cercospora*. 3
8. What are smut fungi ? Discuss the life history of a smut fungus genus studied by you. 6

**SECTION—C**

9. Answer the following questions briefly :
- (a) What is lysogeny ? Comment on its significance.  
 (b) Differentiate between transformation and transduction.  
 (c) Write down the characteristic features of Gram positive bacteria.  
 (d) Comment on the economic importance of Cyanobacteria.  
 (e) Give an account of role of fungi in agriculture.  
 (f) Differentiate between homoimerous and heteromerous lichens.  
 (g) What do you mean by perithecia and apothecia ?  
 (h) What are heteroecious rusts ? 8×2=16

Roll No. ....

Total No. of Pages : 2

**PC 11439-NH**

AS/2111

**DIVERSITY OF MICROBES—I**

**Semester—I**

Time Allowed : Three Hours]

[Maximum Marks : 40

**Note** :- The candidates are required to attempt *two* questions each from Sections A and B. Section C will be compulsory.

**SECTION—A**

1. Elaborate the structure, classification and importance of viruses. 6
2. What do you mean by Mycoplasma ? Explain their structure and economic importance. 6
3. List the salient features of bacteria. Give an account of the nutritional types of bacteria. 6
4. Describe the thallus structure and reproduction in *Oscillatoria*. 6

**SECTION—B**

5. Give an account of the general characters of Fungi like organisms classified in *Chromista*. Explain the process of sexual reproduction in *Phytophthora*. 6
6. Classify the genus *Penicillium*. Explain the life history of *Penicillium*. 6