

**BSC (CBCS) Botany- I Year Semester I - Question Bank**

**Subject Title- Microbial Diversity of Lower Plants**

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**UNIT-I : MICROBIAL DIVERSITY**

**Essay Questions: (15 M)**

1. Write an account of Actinomycetes?
2. Describe the ultra structure of Cyanobacterium cell?
3. Give an account of Archaeobacteria?
4. Give an account of Blue- Green algae?
5. Describe the structure and reproduction in Lichens?
6. Describe the economic importance of Lichens?

**Short Answer Questions: (4M)**

1. Apothecium of Lichens.
2. Crustose and Foliose Lichens.
3. Soredium and Isidium.
4. Methanogenic bacteria.
5. Streptomyces.
6. Nostoc.
7. Oscillatoria.
8. Anabaena.
9. Heterocyst.
10. Hormogonia.
11. BGA as biofertilizers and SCP.

**UNIT-II: VIRUSES, BACTERIA AND MYCOPLASMA**

**Essay Questions: (15M)**

1. Describe the structure and replication of TMV?
2. Describe the structure and replication of Bacteriophages?
3. Describe the symptoms and transmission methods of virus diseases?

4. Describe the cell structure of bacterium?
5. Describe the process of sexual reproduction in bacteria?
6. Describe the economic importance of bacteria?
7. What are mycoplasmas? Describe their structure and characters?

**Short Answer Questions: (4M)**

1. TMV.
2. Viroids and Prions.
3. Papaya leaf curl disease.
4. Little leaf of Brinjal.
5. Bacterium cell.
6. Flagella in bacteria.
7. Binary fission.
8. Bacterial blight of rice.
9. List of plant diseases of bacteria.
10. List of human diseases of bacteria.
11. Transformation, Transduction and Conjugation.
12. Modes of nutrition in bacteria.

**UNIT- III : ALGAE**

**Essay Questions: (15M)**

1. Give an account of the general characters of algae?
2. Describe briefly various methods of asexual and sexual reproduction in algae?
3. Write an account of classification of algae of FRITSCH?
4. Describe economic importance of algae?
5. Describe the structure and reproduction in Volvox?
6. Describe the life history of Oedogonium?
7. Describe the process of sexual reproduction in Chara? OR  
Give a detailed account of the structure and development of sex organs in Chara?
8. Describe the process of sexual reproduction in Ectocarpus? OR  
What is meant by Isomorphic alternation of generations? Explain with reference to the life cycle of Ectocarpus?
9. Describe the structure and life history of Polysiphonia?

**Short Answer Questions: (4M)**

1. Coenobium.
2. Nannandrium/ Dwarf male.

3. Cell division in Oedogonium.
4. Macrandrous species.
5. Nucule.
6. Globule.
7. Unilocular sporangium and Plurilocular sporangium.
8. Cystocarp.
9. Carposporophyte and Tetrasporophyte.

### **UNIT – IV: FUNGI**

#### **ESSAY QUESTIONS: (15M)**

1. Give an account of Mushroom cultivation?
2. Give an account on the economic importance of fungi?
3. Give an account of the general characters of fungi?
4. Describe briefly various methods of asexual and sexual reproduction in fungi?
5. Write an account of classification of fungi of AINSWORTH?
6. Describe the life history of Albugo? OR  
Give an account of white rust of crucifers and mention its control measures?
7. Give an account of the life history of Mucor?
8. Describe the structure and reproduction of Yeast with a note on their industrial value?
9. Write an account of the complete life history of Puccinia? OR  
Give an account of various stages in the life history of the fungus which causes  
Black stem rust of wheat and suggest the methods of its control?
10. Describe the structure and the disease details caused by Cercospora?

#### **Short Answer Questions: (4M)**

1. Oyster Mushrooms.
2. Button Mushrooms.
3. Tikka leaf spot disease and control measures for Tikka disease.
4. Symptoms of Black stem rust.
5. Describe the structure and reproduction in Penicillium.
6. Symptoms of White rust.