

SEMESTER – II
Thallophytes, Archegoniatae and Plant Pathology
Course Code: BO1231

I. Write a short note on the following. All questions compulsory. (10 x 01 = 10)

1. Gemma
2. Calyptras
3. Ligule
4. Ramenta
5. Coprophilus fungi
6. Aflatoxins
7. Annulus
8. Trabeculae
9. Apospory
10. Protonema
11. Columella
12. Capsule
13. Seta
14. Palmella stage
15. Anisogamy
16. Holdfast
17. Scion
18. Amylum stars
19. Cortication
20. Dikaryon
21. Sclerotia
22. Rhizomorph
23. VAM
24. Name the fungi used in the production of citric acid.
25. Etiology
26. Epiphytotic diseases
27. Leptosporangiate

II. Answer any eight (8 x 2 = 16 marks)

1. Name the causative organism for Powdery mildew of rubber.
2. Write the method of preparation of Bordeaux mixture.
3. Write an account on the vegetative reproduction in Chara.
4. Write a short note on Rhizophore of *Selaginella*.
5. Differentiate homospory and heterospory.
6. Write a note on Eusporangiate ferns.
7. Write short note on Peristome teeth.

8. What is alternation of generation?
9. Explain thallus structure of *Polysiphonia*.
10. Describe asexual reproduction in *Rhizopus*.
11. Differentiate auxospore and autospore.
12. What are conceptacles?
13. Comment on Ectomycorrhiza.
14. Differentiate fruticose and foliose lichen with examples.
15. Write a short note on preparation of tobacco decoction.
16. Write a short note on the asexual reproduction in *Polysiphonia*.
17. Briefly describe Carpogonium.
18. Write a short note on the asexual reproduction in Chlorophyceae.
19. Describe the vegetative reproduction in *Chara*.
20. Describe Hormogonia as a method of reproduction.
21. Explain Diplobiontic life cycle.

III. Answer any six (6 x 4 = 24 marks)

1. Explain the thallus structure and reproduction of *Nostoc*.
2. Describe the apothecium of *Peziza* with a neat labelled diagram.
3. Briefly explain the economic importance of fungi.
4. Write the causative organism, symptoms and control measures of the following diseases:
 - a. Brown spot disease of paddy
 - b. Leaf mosaic disease of tapioca
5. Briefly explain the economic importance of Bryophytes.
6. Discuss the phylogenetic classification in Pteridophyta.
7. Explain the morphological and anatomical features of *Usnea*.
8. Briefly explain the economic importance of Lichens.
9. Explain the structure and reproduction in *Rhizopus*.
10. Write an account on the general characteristics of Pteridophytes
11. Explain the vegetative and sexual reproduction in *Funaria*.
12. Enumerate the dissimilarities of bryophytes with pteridophytes
13. Discuss the spore dispersal mechanism in *Pteris*.
14. Describe the asexual and sexual reproductive methods in *Chara*.

IV. Write essay on any two of the following. (2 x 15 = 30 marks)

1. With the help of neat and labelled diagrams describe the life cycle of *Puccinia*.
2. What is diplontic life cycle? Explain the thallus structure and sexual reproduction of *Sargassum*.
3. Compare the nannandrous and macrandrous life cycle of *Oedogonium*.
4. Give an account on the sexual reproduction in *Riccia*.
5. Compare the sporophytes of Bryophytes that you have studied.
6. Give an account of sexual reproduction in *Pinus*.
7. Write the general characters and classification of gymnosperms.