

FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE

Second Semester B.Sc Botany Degree Examination, April 2024

BBT2B02 - Microbiology, Mycology, Lichenology and Plant Pathology

(2022 Admission onwards)

Time: 2 hours

Max. Marks : 60

SECTION A**(Answer all questions, each question carries 2 marks. Ceiling: 20 Marks)**

1. Some fungi are used as model organisms for research. Justify
2. Distinguish between viroids and prions.
3. Distinguish between gram positive and gram negative bacteria.
4. List any four symptoms of fungal diseases.
5. Provide two examples of fungal databases.
6. What is meant by Phyllosphere:?
7. Lichens are used as pollution indicators. Justify .
8. List any two examples of the medicinal importance of fungi.
9. What is Bordeaux mixture? Write its chemical composition.
10. Give two examples for lichens used as food.
11. Write a note on mycorrhiza.
12. Write a note on quarantine measures.

SECTION B**(Answer all questions, each question carries 5 marks. Ceiling: 30 Marks)**

13. Describe lytic and lysogenic cycles of bacteriophages.
14. Give a brief description about the industrial applications of microbes
15. Describe the mycelial morphology and life cycle of *Pythium*.
16. Give an account on the ultrastructure of bacteria.
17. Describe the general characters and economic importance of Ascomycotina.
18. Describe the thallus structure and reproduction of *Usnea*.
19. Write the name of the pathogen and describe the symptoms and control measures of Citrus canker

SECTION C

(Answer any one question, each question carries 10 marks. $1 \times 10 = 10$ Marks)

20. Describe the various genetic recombination methods in bacteria.
21. Give an account of the life cycle of *Agaricus*

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FAROOK COLLEGE (AUTONOMOUS), KOZHIKODE
Second Semester B.Sc Zoology Degree Examination, April 2024
BBT2C02 - Cryptogams, Gymnosperms & Plant Pathology
 (2022 Admission onwards)

Time: 2 hours

Max. Marks : 60

SECTION A

(Answer all questions, each question carries 2 marks. Ceiling: 20 Marks)

1. What are the major groups of viruses based on the genetic materials?
2. Write about the grouping of Bacteria based on flagella.
3. Give the economic significance of Phaeophyceae, citing examples.
4. Write four salient features of Rhodophyceae.
5. Give the salient features of Ascomycotina.
6. Describe the Aecial stage in *Puccinia*.
7. Explain the structure of sporophyte in *Riccia*.
8. Give the structure of male gametes in *Selaginella*.
9. Describe the Pteridophycean features in *Cycas*.
10. Describe the structure and significance of seed in *Cycas*.
11. Write on the symptoms and control measures of Tapioca Mosaic disease.
12. Name the causative organism and describe the symptoms of Citrus Canker.

SECTION B

(Answer all questions, each question carries 5 marks. Ceiling: 30 Marks)

13. Write a systematic account of Bacteriophages. Draw diagram [3.5+1.5= 5 marks].
14. Can Blue green algae be considered as Bacteria? Discuss citing reasons.
15. Write on the reproduction in *Spirogyra*.
16. Describe the reproduction in *Polysiphonia*.
17. Describe the thallus structure of *Riccia*. Draw diagrams [3.5+1.5= 5 marks].
18. Describe the structure of the following in *Selaginella*;
 a) ligule, b) strobilus, c) types of sporangia, d) spores. [1+1+2+1 = 5 marks]
19. Give an account about the causative organism, symptoms and control measures of Blast of Paddy.

SECTION C

(Answer any one question, each question carries 10 marks. 1 x 10 = 10 Marks)

20. Write detailed notes on the following. Draw labelled diagrams.
a) Bacterial cell. b) Four major stages in *Puccinia*. [3.5 + 1.5 x 2 = 10 marks].
21. Describe the structure of male and female reproductive structures in
a) *Riccia*. b) *Cycas*. Draw diagrams [3.5 + 1.5 x 2 = 10 marks]