

**THIRD SEMESTER (CBCSS—UG) DEGREE EXAMINATION
NOVEMBER 2020**

Plant Science

PLA 3B 03—ALGAE, FUNGI, LICHENS, BACTERIA, VIRUSES AND PLANT DISEASES

Time : Two Hours and Half

Maximum : 80 Marks

Section A

Answer at least ten questions.

Each question carries 3 marks.

All questions can be attended.

Overall Ceiling 30.

1. Which are the different types of reproduction in Nostoc ?
2. Give a brief account of HIV.
3. What are Fruticose lichens ? Give an example.
4. What are Viroids and Prions ?
5. Differences between Bacteria and Archae bacteria.
6. What are Koch's postulates ?
7. Write notes on the economic importance of bacteria ?
8. Draw a labelled diagram of the structure of Usnea thallus.
9. What are the characters of Mucor ?
10. Give an account of industrial uses of fungi.
11. What are the vegetative features of Spirogyra ?
12. Explain bacterial nutrition.
13. What are the biological methods of controlling plant diseases ?
14. Explain water bloom.
15. What are the types of lichen based on fungael partner ?

(10 × 3 = 30 marks)

Turn over

Section B

Answer at least five questions.

Each question carries 6 marks.

All questions can be attended.

Overall Ceiling 30.

16. What are the different techniques to study bacteria ?
 17. Describe with diagram the structure of Chlamydomonas.
 18. Give a brief account of reproduction and life cycle of Stemonitis.
 19. What are the economic and ecological aspects of lichen ?
 20. Give an account of economic importance of algae.
 21. Write an account of causative organism, symptoms and control measures of the following :
 - (a) Grey leaf spot of coconut.
 - (b) Nematode infection in banana.
 22. Give an account of sexual reproduction in Lichen.
 23. Give a summary of general characters and reproduction in mitosporic fungi (Deuteromycetes).
- (5 × 6 = 30 marks)

Section C

Answer any two question.

Each question carries 10 marks.

24. Describe with diagram the structure and reproduction of Sargassum.
 25. Write an essay regarding the reproduction and life cycle of Agaricus. Draw diagrams.
 26. Give an account of growth, nutrition and reproduction in bacteria.
 27. Give a summary of symptoms of plant diseases.
- (2 × 10 = 20 marks)

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(2019—2020 Admissions)

Time : Two Hours and a Half

Maximum : 80 Marks

Section A

Answer at least ten questions.

Each question carries 3 marks.

All questions can be attended.

Overall Ceiling 30.

1. Which are the parts of the mature Sargassum ?
2. Give a brief account of medicinal aspects of Algae.
3. Write notes on Transduction.
4. What are the general characters of Rhodophyceae ?
5. What are the main differences between True fungi and Pseudo fungi ?
6. Give a brief account of sexual reproduction in Pinnularia.
7. What are the main differences between the chloroplast of Chlmydomonas and Spirogyra ?
8. What is the source of agar-agar ? Mention any *two* uses.
9. Write notes on Soridia.
10. Distinguish between water bloom and eutrophication.
11. What is Conjugation ?
12. Give a brief account of alternation of generation in Sargassum.
13. What is Necrosis ? Explain.
14. Heterothallism
15. What are the general characters of Mitosporic fungi ?

(10 × 3 = 30 marks)

Turn over

Section B

Answer at least five questions.

Each question carries 6 marks.

All questions can be attended.

Overall Ceiling 30.

16. Describe the various methods of asexual reproduction in Lichen.
17. Give a summary of reproduction in Pythium.
18. Describe with diagram the general characters of Agaricus.
19. Write an account of retroviruses, HIV, Viroids and prions.
20. Describe with diagrams asexual reproduction in Puccinia.
21. Give an account of structure and reproduction in Vaucheria. Draw diagrams.
22. Describe with diagram the reproduction in Polysiphonia.
23. Explain the various types of biotic and abiotic agents of plant diseases.

(5 × 6 = 30 marks)

Section C

Answer any two questions.

Each question carries 10 marks.

24. Describe with diagram the structure and reproduction of Oedogonium.
25. Describe with diagram the structure, reproduction and life cycle of Peziza.
26. Write an essay regarding the economic, ecological and ecophysiological importance of Lichen.
27. Give an account of pathogen and symptoms (a) Blast of rice ; (b) Grey leaf spot of coconut ; (c) Mosaic disease of tapioca ; and (d) Rhizome rot of ginger (e) Citrus canker.

(2 × 10 = 20 marks)