D 103735 **(Pages : 2)** **Name.....**

Reg. No.....

SECOND SEMESTER (CBCSS—UG) DEGREE EXAMINATION
APRIL 2024

Botany

BOT 2B 02—MICROBIOLOGY, MYCOLOGY, LICHENOLOGY AND PLANT PATHOLOGY

(2019—2023 Admissions)

Time : Two Hours Maximum : 60 Marks

Section A

Answer **all** *questions.*
Each question carries 2 *marks.*
Ceiling : 20 *Marks.*

1. Differentiate Rhizosphere and Phyllosphere micro-organisms.
2. Expand SCP.
3. What are Retroviruses ? Give example.
4. What is Mycelium ?
5. Draw morphology of basidiocarp of *Agaricus.*
6. What are fairy rings ?
7. What is torula conditions of *Mucor* ?
8. How lichens act as pioneers of Xerosere.
9. What is meant by bioremediation
10. What is a pathogen and parasite ?
11. Write the causative organism of Citrus Canker and Grey leaf spot of coconut.
12. What is inoculum potential ?

Turn over

Section B

Answer **all** *questions.*
Each question carries 5 *marks.*
Ceiling : 30 *Marks.*

13. Draw and explain the ultra-structure of bacteria.

14. Write short notes on milk products.

15. Write short notes on TMV and HIV.

16. Explain the beneficial and harmful roles of fungi.

17. Write an account on asexual reproduction in *Cercospora*.

18. Write short notes on structure of Lichens.

19. Explain briefly the various methods employed in plant quarantine.

Section C

Answer any **one** *question.*
The question carries 10 *marks.*

20. Describe the structure of bacteriophage with the help of suitable diagrams ?

21. Give a concise account of asexual reproduction in the fungi.

(1 × 10 = 10 marks)

C 43155 (Pages : 2) Name.....

Reg. No.....

SECOND SEMESTER (CBCSS—UG) DEGREE EXAMINATION APRIL 2023

Botany

BOT 2B 02—MICROBIOLOGY, MYCOLOGY, LICHENOLOGY AND PLANT PATHOLOGY

(2019—2022 Admissions)

Time : Two Hours Maximum : 60 Marks

Section A

Answer **all** *questions, each question carries* 2 *marks - Ceiling* 20 *marks.*

1. Differentiate Gram positive and Gram negative bacteria.
2. Expand TMV and HIV.
3. What is transduction ?
4. Which fungus is commonly used for genetic studies.
5. Write two examples for fungal toxins.
6. What are chief characteristics of Ascomycotina and Zygomycotina ?
7. How many stages are there in the life cycle of *Puccinia graminis*. Give their names and host on which these stage are found.
8. What is Lichen ? Give an example.
9. How lichens involved in soil formation ?
10. Write the causative organism of Blast of paddy and Mahali disease of arecanut.
11. What do you understand by plant protection ?
12. What is meant by disease triangle ?

(Ceiling 20 marks)

Section B

Answer **all** *questions, each question carries* 5 *marks - Ceiling* 30 *marks.*

13. Write short notes on Viroids and Prions.
14. Write short notes on SCP.

Turn over

15. Write a detailed note on Bacterial conjugation.

16. What is mycelium ? Give an account of different types of mycelia met within the fungi.

17. How does zygospore formation takes place in Mucor ?

18. Discuss lichen as a pollution indicator.

19. Explain briefly the various methods employed in plant quarantine.

(Ceiling 30 marks)

Section C

Answer any **one** *question, The question carries* 10 *marks.*

20. Write an essay on the transmission of viruses ?

21. Write an essay on economic importance of fungi.

(1 × 10 = 10 marks)

C 23848 (Pages : 2) Name.....

Reg. No.....

SECOND SEMESTER (CBCSS—UG) DEGREE EXAMINATION
APRIL 2022

Botany

BOT 2B 02—MICROBIOLOGY, MYCHOLOGY, LICHENOLOGY AND PLANT PATHOLOGY

(2019—2020 Admissions)

Time : Two Hours Maximum : 60 Marks

Section A

Answer **all** *questions, each question carries* 2 *marks - Ceiling* : 20 *marks.*

1. What are the applications of the following micro-organisms ?
   (a) *Rhizobium*. (b) *Bacillus thuringiensis*.
2. What are bacteriophages ? Give an example.
3. What is bacterial conjugation ?
4. Give scientific names of any *two* edible fungi.
5. What are symptoms of infection caused by *Pythium*.
6. Differentiate uredospores and teleutospores.
7. Give an example for a coprophilous fungus
8. What is the ecological importance of Lichen ?
9. Give an example of lichen which is used as food.
10. Define disease.
11. Write the causative organism of Bunchy top of banana and Quick wilt of pepper.
12. What is meant by plant quarantine ?

(20 marks)

Section B

Answer **all** *questions, each question carries* 5 *marks - Ceiling :* 30 *Marks.*

13. Give an account on production of acids using micro-organisms.
14. Give a brief account of Salient features of bacteria.

Turn over

15. What are bacteriophages ?

16. Write characteristic features of *Peziza*.

17. What are fungal toxins ? Give examples.

18. What is Lichen ? Describe in detail the internal structure of lichen.

19. Explain briefly the various techniques of Biocontrol of plant diseases.

(30 marks)

Section C

Answer any **one** *question, each question carries* 10 *marks,* 1 × 10 = 10 *marks.*

20. Explain in detail the reproduction in Bacteria.

21. Write an essay on symptoms of different plant diseases.

(1 × 10 = 10 marks)

C 22058 **(Pages : 2)** **Name.....**

Reg. No.....

SECOND SEMESTER (CBCSS—UG) DEGREE EXAMINATION, APRIL 2022

Botany

BOT 2B 02—MICROBIOLOGY, MYCHOLOGY, LICHENOLOGY AND PLANT PATHOLOGY

(2021 Admissions)

Time : Two Hours Maximum : 60 Marks

Section A

Answer atleast **eight** *questions.*
Each question carries 3 *marks.*
All questions can be attended.
Overall ceiling 24.

1. What are haustoria ? What is its function ?
2. Explain the role of lichens as food.
3. Differentiate between ascospores and basidiospores.
4. Bring out the different types of growth forms of lichens with suitable examples.
5. Differentiate cleistothecium from perithecium.
6. Mention the causative organism of grey leaf spot of coconut. Write any two control measures against the disease.
7. Write notes on SCP.
8. Differentiate sporadic diseases from epidemic diseases.
9. Bring out the distinguishing characters of anamorphic fungi.
10. What are retroviruses ? Give an example.
11. Write notes on quarantine measures.
12. What are mesosomes ? Mention any of its assumed role .

(8 × 3 = 24 marks)

Turn over

Section B

Answer atleast **five** *questions.*
Each question carries 5 *marks.*
All questions can be attended.
Overall ceiling 25.

13. Discuss the different modes of nutrition found in fungi.
14. Describe the microbiology of milk products.
15. With suitable diagrams, explain the ultra structure of a bacterial cell.
16. Describe the aetiology, symptoms and control measures of bunchy top of banana.
17. Bring out the role of lichens in soil formation and as pioneers of xerosere.
18. Write notes on rhizosphere and phyllosphere microbial flora and its role to plants.
19. Explain the importance of fungi in agriculture.

(5 × 5 = 25 marks)

Section C

Answer any **one** *question.*
The question carries 11 *marks.*

20. Give an account of the economic importance of fungi.
21. With suitable illustrations, explain the classification, architecture and multiplication of bacteriophages.

(1 × 11 = 11 marks)