

**2021/TDC/CBCS/ODD/
BOTDSC/GE-101T/137**

**TDC (CBCS) Odd Semester Exam., 2021
held in March, 2022**

BOTANY

(1st Semester)

Course No. : BOTDSC/GE-101T

(Biodiversity)

Full Marks : 50
Pass Marks : 20

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

SECTION—A

Answer any *fifteen* of the following questions :

1×15=15

- 1. Name a plant virus.**
- 2. Name a useful bacteria.**
- 3. What is a DNA virus?**
- 4. What is sex pili?**

(2)

5. What is coenocytic thallus?
6. Agar-agar is produced by which algae?
7. What is colonial thallus?
8. Why are algae regarded as autotrophic organism?
9. What are hyphae?
10. What is chitin?
11. Name one edible fungus.
12. Write the full form of VAM.
13. What is columella in bryophytes?
14. Give example of a homosporous pteridophyte.
15. What is a gemma cup?
16. What is rhizophore?

(3)

17. Why are gymnosperms called softwood spermatophyte?
18. What is ovuliferous scale?
19. What is microsporophyll?
20. What is megasporophyll?

SECTION—B

Answer any five of the following questions : 2×5=10

21. Why are viruses called absolute parasite?
22. Differentiate between Gram-positive and Gram-negative bacteria.
23. What is oogamy?
24. What are akinetes?
25. What are lichens?
26. What is basidium?
27. Write about two economic uses of bryophytes.

(4)

28. Why is Rhynia regarded as early land plants?
29. State two characters of gymnosperms.
30. Draw a clearly labelled diagram of a Pinus needle in TS.

SECTION—C

Answer any *five* of the following questions : $5 \times 5 = 25$

31. With a suitable diagram, describe the lytic cycle in bacteriophage.
32. What is conjugation? Discuss different types of bacterial conjugation. $1+4=5$
33. Write briefly about Fritsch's classification of algae.
34. Write a note on the economic importance of algae.
35. Write a note on classification of Fungi.
36. Write a note on ectomycorrhiza. State how they differ from endomycorrhiza. Write about the importance of mycorrhiza in agriculture.

$2+1+2=5$

(5)

37. Describe the anatomy of thallus of Marchantia with suitable diagram.
38. Write a note on heterospory and seed habit in Pteridophyta.
39. Write a note on male gametophyte of Cycas.
40. Write a note on economic importance of gymnosperms.
