2023/FYUG/ODD/SEM/
BOTDSC-101T/037

FYUG Odd Semester Exam., 2023
(Held in 2024)

BOTANY

(1st Semester)

Course No. : BOTDSC-101T

(Microbiology)

Full Marks : 70
Pass Marks : 28

Time : 3 hours

The figures in the margin indicate full marks for the questions

SECTION—A

Answer *ten* questions, selecting any *two* from each Unit : 2×10=20

UNIT—I

1. Differentiate between prokaryotic cells and eukaryotic cells.

2. Define culture media.

3. Write a note on vaccines.

UNIT—II

4. Write a note on structure of TMV.

5. Write about mycoplasma.

6. Give a brief account of *Bacillus*.

UNIT—III

7. Write a note on plant growth promoting bacteria.

8. Name one nitrifying and one denitrifying bacteria.

9. Give a short account of humus.

UNIT—IV

10. Write a note on microbial spoilage of foods.

11. Write about food poisoning.

12. Give a brief account of continuous fermentation.

UNIT—V

13. Write a note on determination of BOD.

14. Write about aspergillosis.

15. Give a short account of tetanus.

SECTION—B

Answer *five* questions, selecting *one* from each Unit : 10×5=50

UNIT—I

16. Describe microbial nutrition in detail. Give an account of growth curve. 6+4=10

17. Give a detailed account of physical and chemical methods of sterilization. 5+5=10

UNIT—II

18. Write notes on prions with its disease cycle. 5+5=10

19. Write about *Rhizobium* and its role in agriculture. 5+5=10

UNIT—III

20. Describe role of microbes in carbon cycle. Write a note on mycorrhiza. 6+4=10

21. Give a detailed account of mechanism of biological nitrogen fixation. Write about microbial pesticides. 6+4=10

UNIT—IV

22. Give an account of pasteurization of milk. Describe microbial production of citric acid. 5+5=10

23. Define antibiotics. Point out their mode of action. Describe microbial production of penicillin. 1+2+7=10

UNIT—V

24. Give a brief account of water microflora. Describe the role of microbes in sewage treatment. 3+7=10

25. Give of a detailed account of microbes in biodegradation of hydrocarbons. Add a note on bioremediation of contaminated soil. 6+4=10

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