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B.M.S COLLEGE FOR WOMEN, AUTONOMOUS
BENGALURU – 560004
SEMESTER END EXAMINATION – MARCH/APRIL- 2023

B.Sc. in Microbiology – III Semester

MICROBIAL DIVERSITY
(NEP Scheme 2021-22 onwards)

Course Code: MB3DSC03

QP Code: 3020

Duration: 2 ½ Hours

Max. Marks: 60

SECTION-A

I. Answer all the following

(5X2=10)

1. Corona viruses
2. What are Halophiles? Give examples
3. *Streptomyces*
4. Lichens
5. Zygosporangium

SECTION-B

II. Answer any FOUR of the following

(4X5=20)

6. Name the major criteria for classification of bacteria
7. Write the salient features of protozoa
8. Give a note on Mycoplasma and its importance.
9. Write the structure of Viruses
10. Asexual reproduction in Rhizopus
11. Differentiate between bacteriophage, Cyanophage and Mycophage

SECTION-C

III. Answer any TWO of the following

(2X10=20)

12. Write about the life cycle of *Aspergillus*
13. Write the structure and replication of T4 phage
14. Write general characteristics of Cyanobacteria. Add a note on *Spirulina*
15. Give importance of conservation and economic value of microbial diversity.

SECTION-D

IV. Answer all Multiple-Choice Questions (MCQs)

(10X1=10)

16. Microbial diversity means
- Study of bacteria in extreme environments
 - Study of actinomycetes
 - Isolation of Rickettsia
 - A study about microbes in various environment
17. The criteria of classification in bacterial systematics include
- Biochemical test and G+C%
 - Morphology and Chemotaxonomy
 - Staining methods and IMViC
 - All of the above
18. A viral DNA gets inserted in bacterial host DNA. It is known as
- Lyzogeny
 - Lytic cycle
 - Capsid
 - Replication
19. Nocardia has a role of
- Nutrition
 - Nitrogen fixation
 - Biodegradation
 - Biobleaching
20. An example for Deuteromycetes is
- Saccharomyces
 - Agaricus
 - Rhizopus
 - Fusarium

21. Photosynthetic protozoa is
- a. Euglena
 - b. Paramecium
 - c. Giardia
 - d. None of the above
22. Symbiotic association is found in
- a. Frankia and Chlorella
 - b. Frankia and Lichens
 - c. Diatoms and Gracilaria
 - d. Agaricus and Chlorella
23. HIV has a genetic material of
- a. ds DNA
 - b. ss DNA
 - c. ss RNA
 - d. Circular DNA
24. TMV is a virus with
- a. Polyhedral Symmetry
 - b. Helical Symmetry
 - c. Bullet shaped
 - d. Only nucleic acid
25. Typhus fever is caused by
- a. Mycoplasma
 - b. Rickettsiae
 - c. Actinomycetes
 - d. Chlamydiae

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