

**Total Pages—5 PG/IIIS/MCB/304.1 & 304.2/24
(CBCS)**

PG 3rd Semester Examination, 2024

MICROBIOLOGY

PAPER – MCB-304.1 & 304.2

Full Marks : 50

Time : 2 hours

Answer all questions

The figures in the right hand margin indicate marks

*Candidates are required to give their answers in their
own words as far as practicable*

PAPER : MCB-304.1

(Environmental Microbiology)

GROUP – A

Answer any two questions from the following :

2 × 2

(Turn Over)

(2)

1. What is the difference between BOD and COD ?
2. What is Activated sludge ?
3. What is potable and non-potable water ?
4. What is bio-augmentation ?

GROUP – B

Answer any two questions from the following :

4 × 2

5. What is solid waste ? Write the solid waste management. 1 + 3
6. How can you measure eutrophication in a water body ?
7. Mention the process of Copper Bioleaching from ore.
8. Write the application of bioaugmentation and bioventing. 1 + 3

(3)

GROUP – C

Answer any **one** question from the following :

8 × 1

9. Schematically represents the secondary and tertiary treatment of waste water. Give two microbes associated with waste water treatment.

6 + 2

10. Schematically describe the biodegradation of oil hydrocarbon.

PAPER : MCB-304.2

GROUP – A

Answer any **two** questions from the following :

2 × 2

11. What is Carrier-based and liquid biofertilizers ?

12. What is PGPR ?

13. Name two microorganisms used for bioleaching ?

(4)

14. Write two advantages of using micro algae in biofuel production.

GROUP – B

Answer any **two** questions from the following :
4 × 2

15. State the role of biofertilizers in plant growth and soil health.
16. Write the advantage of biodiesel. Write the generation of biodiesel.
17. What is epidemic, endemic, pandemic and sporadic ?
18. Classify the human transmitted disease and define each types.

GROUP – C

Answer any **one** question from the following :
8 × 1

(5)

19. What is Biopesticides ? Classify the biopesticides and give example each type. Write the mechanism of virus as a biopesticide.

1 + 5 + 2

20. Write the control techniques of air borne microbes. Write a note on compost biofertilizer.

4 + 4

[Internal Assessment – 10 Marks]
