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BSCMBC 355

**Credit Based VI Semester B.Sc. Degree Examination, September 2022
(2020 – 21 and Earlier Batches)
MICROBIOLOGY**

Environmental Microbiology, Biostatistics and Bioinformatics

Time : 3 Hours

Max. Marks : 80

- Note :** 1) Answer **both** Part – A and Part – B.
2) Draw diagrams **wherever** necessary.

PART – A

1. Answer **any ten** of the following.

(2×10=20)

- a) Rotorod
- b) Aerosols
- c) Pneumonia
- d) Limnetic zone
- e) Benthos
- f) Ground water
- g) Sewage
- h) Jaundice
- i) Sludge
- j) Bioinformatics
- k) Data
- l) Search engines.

P.T.O.



PART – B

Answer **all** the questions from **each** Unit.

Unit – I

2. a) Write a note on allergy. **(3+5+7=15)**
b) Explain porton and pre impingers as air samplers.
c) Give an account of composition and distribution of microorganisms in air.

OR

3. a) Write a note on Gravity slide sampling of air. **(4+4+7=15)**
b) Comment on fungal air borne diseases with examples.
c) Explain the role of microorganisms in air pollution. Add a note on the control of air pollution.

Unit – II

4. a) Write a short note on eutrophication. **(3+5+7=15)**
b) Discuss the various zones of fresh water body.
c) Explain the causes, effects and control of water pollution.

OR

5. a) Write a short note on bioindicators. **(4+4+7=15)**
b) Discuss Presumptive test for water quality.
c) Discuss the steps involved in municipal water treatment.

Unit – III

6. a) Write a note on the sources of sewage. **(3+5+7=15)**
b) Write a note on CESS POOL.
c) Define BOD. Explain its method of estimation.

OR

7. a) Discuss the methods of control of water borne diseases. **(4+4+7=15)**
b) Give an account of microbiological characteristics of sewage.
c) Explain the methods of secondary treatment of sewage.



Unit – IV

8. a) Write a note on DNA chips. **(3+5+7=15)**
- b) Write a note on history and development of bioinformatics.
- c) Explain the tabular representation of DATA with an example.

OR

9. a) Write a note on biological data bases and its types. **(4+4+7=15)**
- b) Define sampling. Add a note on its methods.
- c) The frequency distribution weight of sharks bred in an aquarium is given below.

Calculate mean and median :

Weight in Kg	0-10	10-20	20-30	30-40	40-50
No. of sharks	12	8	5	8	7
