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BSCMBC 359

Credit Based Sixth Semester B.Sc. Examination, May/June 2016
(Semester Scheme)

(New Syllabus 2012-13 Batch Onwards)

MICROBIOLOGY (Paper – VIII) (Common to all Batches)
Environmental Microbiology, Biostatistics and Bioinformatics

Time : 3 Hours

Max. Marks : 80

Instructions : 1) Answer *all* the questions.
2) Draw diagrams *wherever* necessary.

PART – A

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

(2×10=20)

- | | |
|------------------|---------------------|
| a) Blastomycosis | b) Limnetic zone |
| c) Impactors | d) Domestic sewage |
| e) EMB agar | f) Sludge |
| g) Coliforms | h) Trickling filter |
| i) Durahms tube | j) Coagulants |
| k) Proteomics | l) Nominal scale. |

PART – B

Answer **any four** questions choosing **one full** question from **each** Unit.

Unit – I

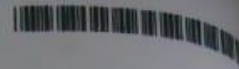
2. a) Write a note on outdoor microbial composition of air.
b) Explain the plate exposure method of air sampling.
c) Discuss about the fungal air borne diseases.

(4+4+4=12)

OR

- a) Write a note on different types of allergy.
b) Explain the factors affecting air microflora.
c) Discuss about the viral air borne diseases.

(3+5+3=11)



Unit – II

4. a) Write a note on stratification of lakes based on temperature.
 b) Write a short note on defined substrate test.
 c) Discuss the different steps involved in coliform test.

(4+4+7=15)

OR

5. a) What do you mean by sedimentation ? Where the process is used ?
 b) Differentiate slow sand filters from rapid sand filters.
 c) Discuss about the marine microflora.

(3+5+7=15)

Unit – III

6. a) Write a short notes on oxidation lagoons.
 b) Explain the secondary settling tank.
 c) Discuss about the bacterial water borne diseases.

(4+4+7=15)

OR

7. a) Explain the primary treatment process of sewage.
 b) Write a note on microbiological characters of sewage.
 c) How do you determine the BOD of sewage ?

(3+5+7=15)

Unit – IV

8. a) Explain bioinformatics.
 b) Write a note on DNA chips.
 c) Find the median and mode of the following.

(4+4+7=15)

Height	130-139	140-149	150-154	155-159	160-164	165-169	170-179
No. of Students	2	3	11	22	21	17	9

OR

- a) Mention the different types of classification of population.
 b) Find mean of the following.

Salary (Rs.)	2430	2590	2870	3390	4720	5160
Employees	4	28	31	16	3	2

- c) Explain about the biological sequences.

(3+)