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BSCMBC 355

**Credit Based VI Semester B.Sc. Degree Examination, April/May 2017
(Common to All Batches) (Semester Scheme)**

MICROBIOLOGY

**Paper – VIII : Environmental Microbiology, Biostatistics and
Bioinformatics**

Time : 3 Hours

Max. Marks : 80

- Instructions :** 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) Zooplanktons.
 - b) Human genome project.
 - c) Allergy.
 - d) Coliforms.
 - e) Database.
 - f) Anaerobic digester.
 - g) Cholera.
 - h) BOD.
 - i) DNA chips.
 - j) Sewage.
 - k) Impingers.
 - l) Search engines.

P.T.O.



PART – B

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

UNIT – I

2. a) Write a note on distribution of microorganisms in air.
b) Give an account of biofilters.
c) Explain the various techniques involved in sampling of air. (4+4+7=15)

OR

3. a) Write a short note on impactors.
b) Describe the significance of microorganisms in air.
c) Give an account of bacterial air borne diseases. (3+5+7=15)

UNIT – II

4. a) Write a note on disinfection.
b) Discuss on bioindicators of water pollution.
c) Describe in detail about water pollution and its control. (4+4+7=15)

OR

5. a) Write a short note on sand filters.
b) Give an account of stratification of lake.
c) Describe the multiple tube fermentation technique to assess the quality of water. (3+5+7=15)

UNIT – III

6. a) Write a note on sources of sewage.
b) Give an account of management of water borne diseases.
c) Discuss the various methods involved in secondary treatment of sewage. (4+4+7=15)

OR

7. a) Write a short note on COD.
b) Explain the microbiological characteristics of sewage.
c) Give an account of small scale sewage treatment process. (3+5+7=15)



UNIT – IV

8. a) Find the mean incubation period of 12 polio cases given below :

3, 5, 8, 2, 6, 4, 3, 7, 2, 9, 8, 7

b) Write a short note on biological sequences.

c) Discuss on graphical representation of data.

(4+4+7=15)

OR

9. a) Write a short note on sampling.

b) Discuss on genomics and its use in microbiological studies.

c) Find the median and mode of the following :

Percentage of marks	No. of Students
0 – 20	02
20 – 40	04
40 – 60	14
60 – 80	05

(3+5+7=15)