TDC Even Semester Exam., 2019

BOTANY

(Honours)

(6th Semester)

Course No. : BOTH–602

(Microbiology)

Full Marks : 35
Pass Marks : 12

Time : 2 hours

The figures in the margin indicate full marks for the questions

Answer **five** questions, selecting **one** from each Unit

UNIT—I

1. *(a)* State the characteristics of bacteria. 3

(b) Give two similarities between blue-green algae and bacteria. Discuss taxonomic position of cyanobacteria. 2+2=4

2. *(a)* State how viruses resemble non-living agents. Mention four characteristics of viruses by which they resemble other living agents. 2+2=4

(b) Write a note on different groups of bacteria based on their shape. 3

UNIT—II

3. *(a)* State any two characteristics of an ideal disinfectant. 1

(b) Describe briefly physical means of controlling microorganisms. 6

4. *(a)* What is micrometry? 2

(b) Describe briefly different types of culture media. 5

UNIT—III

5. Write a note on transmission of plant viruses. 7

6. Write a note on isolation and purification of viruses. 7

UNIT—IV

7. Write short notes on the following : 3½+3½=7

(a) *E. coli*

(b) Rickettsia

8. *(a)* What is transformation? 2

(b) State the differences between transformation and transduction in bacteria. Describe briefly Hfr conjugation in bacteria. 2+3=5

UNIT—V

9. Write an essay on commercial production of lactic acid. 7

10. *(a)* Write a note on biofertilizers. 3

(b) Describe briefly carbon cycle in nature with special reference to microbial degradation of organic carbon compounds. 4

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