PG Odd Semester Examination, 2022

MICROBIOLOGY

(1st Semester)

Course No.: MIBCC-501

(General Microbiology)

Full Marks: 70

Pass Marks : 28

Time: 3 hours

The figures in the margin indicate full marks for the questions. Answer any five question taking one from each unit.

UNIT-I

1. In brief discuss about the major contributions made by Louis Pasteur and Robert Kock in the field of practical microbiology. 7+7=14

2. Discuss how the three domain concept of Carl Woese is different from other kingdoms of classifications. 14

UNIT-II

3. Define glycocalyx, capsule and slime layers. In details dicuss the arrangement, different parts and movement of flagella in prokaryotic bacteria. 6+18=14

4. (a) Write about the various conformations of plassmids. 5

   (b) Discuss how host to host transfer of plasmids occur. 9

UNIT-III

5. In details discuss the processes by which movement of materials across the plasma membrane occurs. Also write a short note on L-forms. 10+4=14

6. With the help of illustrations discuss the various bacterial cell shapes and their arrangements. 14

UNIT-IV

7. Write short notes on : 7+7=14

   (a) Phycobillisomes

   (b) Magnetosomes

8. Discuss various pure culture techniques in details with suitable diagrams. 14

UNIT-V

9. Discuss various stages of microbial growth curve. What techniques can be employed for its measurement. 14

10. Write short notes on : 7+7=14

    (i) Extremophiles

    (ii) Metagenomics.

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