PG Odd Semester Examination, March, 2023

MICROBIOLOGY

(3rd Semester)

Course No.: MIBCC-304

(Bioinstrumentation & Computer Application)

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. Write short notes on the following : 7x2=14

   (i) Light Microscope

   (ii) Phase Contrast Microscope

2. Describe the essential components of flow cytometry with the help of suitable diagrams and its use in Microbiology. 14

UNIT-II

3. Write short notes on the following : 7x2=14

   (i) TLC

   (ii) Gel Filteration Chromatography

4. Describe the working principle of contrifugation and its application in Microbiology. 14

UNIT-III

5. Explain the essential components of a x-ray diffraction and its use in biopolymer structure analysis. 14

6. Write short notes on the following : 7x2=14

   (i) ESR Spectroscopy

   (ii) MALDI-TOF

UNIT-IV

7. Describe the working principle of southern blotting and its application. 14

8. Write short notes on the following : 7x2=14

   (i) Western blotting

   (ii) Agarose gel elctrophoresis

UNIT-V

9. Write short notes on the following : 7x2=14

   (i) BLAST

   (ii) Database

10. Write short notes on the following : 7x2=14

    (i) Mean, Median and Mode

    (ii) Standard Deviation & Standard Error.

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