PG Odd Semester (CBCS) Exam., December—2018

MICROBIOLOGY

(3rd Semester)

Course No. : MIBCC–304

(Bioinstrumentation and Computer Application)

Full Marks : 70
Pass Marks : 28

Time : 3 hours

The figures in the margin indicate full marks for the questions

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

UNIT—I

1. Write short notes on the following : 7×2=14

(a) TEM

(b) Cytophotometry

2. Describe the essential components of a confocal microscopy with the help of suitable diagrams and its use in microbiology. 14

UNIT—II

3. Write short notes on the following : 7×2=14

(a) Thin layer chromatography

(b) Density gradient centrifugation

4. Write short notes on the following : 7×2=14

(a) Principle and application of centrifugation

(b) Application of column chromatography in microbiology

UNIT—III

5. Explain the essential components of an NMR with the help of suitable diagram. 14

6. Write short notes on the following : 7×2=14

(a) MALDI-TOF

(b) X-ray diffraction

UNIT—IV

7. Describe the working principle of SDS-PAGE and its application. 14

8. Write short notes on the following : 7×2=14

(a) Agarose gel electrophoresis

(b) 2-dimensional gel electrophoresis

UNIT—V

9. What are databases? Explain the different types of databases and their application or significance in microbiology. 14

10. Write short notes on the following : 7×2=14

(a) Application of computer in microbiology

(b) BLAST

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