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PG Even Semester (CBCS) Exam., May—2018

MICROBIOLOGY

(2nd Semester)

Course No. : MIBCC–202

(Molecular Biology and Recombinant DNA Technology)

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. Describe DNA replication process with diagram. 14

2. What are different types of RNA? Describe the secondary structure of t-RNA with diagram. 2+12=14

UNIT—II

3. Explain different DNA repair mechanisms. 14

4. Write notes on split gene and overlapping gene. 7+7=14

UNIT—III

5. Describe transcription process in prokaryotes. 14

6. Write notes on the following : 7+7=14

(a) Aminoacylation of tRNA

(b) Elongation of polypeptide chain in *E.coli*

UNIT—IV

7. What are Phagemids? Describe construction of Phagemids with diagram. 2+12=14

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

(a) P^{BR322}

(b) YAC

UNIT—V

9. What is PCR? Describe principle and steps of PCR. Add a note on different variants of PCR. 2+10+2=14

10. Describe DNA sequencing methods in detail. 14

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