PG Even Semester Examination, September, 2023

MICROBIOLOGY

(2nd Semester)

Course No: MBCC-552
(Molecular Biology and Recombinant DNA Technology)

FM: 70
Pass Marks : 28
Time: 3 Hours

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

UNIT-I

1. Describe structure of DNA with suitable diagram. Add a note on Z-DNA. 10+4=14

2. What is the function of DNA polymerase? Describe different types of DNA polymerases found in *Escherichia coli*. 4+10=14

UNIT-II

3. Describe different types of DNA damage with example. 14

4. Write note on : 7x2=14

   (i) Split gene

   (ii) Recombinaton repair

UNIT-III

5. What is charging of t-RNA? Describe different steps of translation process in prokaryotes. 4+10=14

6. Write note on : 7x2=14

   (i) RNA polymerase

   (ii) Rho dependent termination

UNIT-IV

7. Describe different steps of cloning. 14

8. Write note on : 7x2=14

   (i) Cosmid

   (ii) PUC19

UNIT-V

9. Describe PCR Technique. Adda note on their application. 10+4=14

10. Write note on : 7x2=14

    (i) Sanger's Sequencing method

    (ii) RT PCR

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