FACULTY OF SCIENCE

M.Sc. IV-Semester Examination, May / June 2017

Subject: Microbiology
Paper- I
Molecular Biotechnology

Time : 3 Hours

Max. Marks: 80

PART – A (4x8=32 Marks)
(Short Answer Type)

1. X repressor and activators
2. Importance of secondary messengers
3. Transposon Mutagenesis
4. Designing PCR primes
5. Expression vectors
6. Western blot technique
7. AFLP and its importance
8. Pharmogenomics

PART – B (4x12=48 Marks)
(Essay Answer Type)

9.(a) Give an account of levels of regulation of trp operan.
    OR
    (b) Describe the regulation of lambdá phage.

10.(a) Describe principle and application of PCR and its variants.
     OR
     (b) Describe types of bacterial transposons and mechanism of transposition.

11.(a) Give an account of various blotting techniques along with their applications.
     OR
     (b) Describe the process of genomic library construction and compare it with C-DNA library construction.

12.(a) What is IPR? Describe the importance and significance of patenting.
     OR
     (b) Describe RAPD and AFLP techniques along with their applications.

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