Exam. Code : 206602
Subject Code : 4086

M.Sc. Bioinformatics 2nd Semester
CONCEPTS IN MOLECULAR BIOLOGY &
r-DNA TECHNOLOGY
Paper—BI-521

Time Allowed—Three Hours]   [Maximum Marks—75

Note :— Attempt **FIVE** questions, with at least **ONE** from each section.

SECTION—A

I. (a) What is cot curve ? Describe its significance.8

(b) What are the different banding patterns which can be visualized in DNA ?   7

II. What are the different enzymes involved in DNA replication in prokaryotes ? Write a small note on any one of them.   15

SECTION—B

III. What are the different RNA polymerases in prokaryotes ? Briefly explain the function of any one of them.   15

IV. What is genetic code ? Describe its characteristic features.   15

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SECTION—C

V. What is a lac operon ? How is it regulated ?　15

VI. Write short notes on :—

    (a) Enhancers　5

    (b) Histone deacetylation　5

    (c) DNA methylation.　5

SECTION—D

VII. What are plasmid vectors ? Describe the features of a good plasmid vector.　15

VIII. Write short notes on :—

    (a) Random priming methods　5

    (b) Nick translation　5

    (c) Reverse transcription.　5