

1129

B.A./B.Sc. (General) First Semester

Industrial Microbiology

IMB-102: Microbial Genetics and Molecular Biology

Time allowed: 3 Hours

Max. Marks: 33.5

*NOTE: Attempt five questions in all, including Question No. I which is compulsory and selecting one question from each Unit.*

x-x-x

I. Write short note on following:-

- a) Plasmids (2)
- b) Purines (2)
- c) Splicing (2)
- d) Gene Cloning (2)
- e) Nucleotides (1.5)

UNIT – I

- II. Describe various characteristics of Genetic code. (6)
- III. Discuss differences in translation between Prokaryotes and Eukaryotes. (6)

UNIT – II

- IV. Explain replica plating technique for selection of mutants. (6)
- V. Describe detection and isolation of mutants. (6)

UNIT – III

- VI. Explain differences between transformation and transduction. (6)
- VII. Write applications of production of recombinant proteins in bacteria. (6)

UNIT – IV

- VIII. Discuss the role of cosmids in rDNA technology. (6)
- IX. How a genomic library can be constructed? (6)

x-x-x