Exam.Code:0001
Sub. Code: 0085

2041

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

Industrial Microbiology

IMB-102: Microbial Genetics and Molecular Biology

Time allowed: 3 Hours | Max. Marks: 33

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

x-x-x

I. Attempt the following:-

a) Who got the noble prize for recognition of transposition? (2)

b) Define pyrimidines. (2)

c) What is the role of RNA polymerase? (2)

d) Write a note on lethal mutation. (2)

e) Discuss flow of information. (1)

UNIT – I

II. Explain Watson and Crick Model of DNA. (6)

III. Differentiate DNA replication between Prokaryotes and Eukaryotes. (6)

UNIT – II

IV. Elaborate spontaneous and induced mutations. (6)

V. Explain various features of SOS repair that differentiates it from constitutive other repair systems. (6)

UNIT – III

VI. Discuss conjugation in bacteria with its importance. (6)

VII. Differentiate between transformation and transduction. (6)

UNIT – IV

VIII. Give the methods for identification of desired clones from transformed colonies? (6)

IX. Define cosmids with their applications. Also discuss the use of multiple cloning sites in any vector. (6)

x-x-x