5. Write in details the mechanism of DNA replication in prokaryotes. Illustrate with suitable diagrams. [14]

OR

6. Write short notes on the following: [2x7=14]
   a. Genetic code dictionary
   b. RNA diversity

7. Write a note on the mechanism of DNA repair. [14]

OR

8. Write short notes on the following: [2x7=14]
   a. RNA polymerase
   b. RNA processing

9. Describe the mechanism of control of gene expression in prokaryotes. [14]

OR

10. Write short notes on the following: [2x7=14]
    a. Oncogenes in cancer development
    b. Intrinsic pathways of apoptopsis

PG (CBCS) ODD SEMESTER EXAMINATION, 2021
held in July 2022

LIFE SCIENCE & BIOINFORMATICS
1st Semester

Course No. : LISBCC - 101
(Genetics and Molecular Biology)

Full Marks : 70
Pass Marks : 28

Time : 3 hours

The figures in the margin indicate full marks for the questions

(Answer all questions)

1. Write a descriptive note on extra chromosomal inheritance. [14]

OR

2. Write short notes on the following: [2x7=14]
   a. Multiple alleles
   b. Structural variations of chromosomes

3. Elucidate the mechanism of gene transfer between prokaryotic cells involving either viruses or other prokaryotic cells. [14]

OR

4. Write short notes on the following: [2x7=14]
   a. Plasmids and its features
   b. Non-homogenous recombination