PG Odd Semester (CBCS) Exam., December—2017

LIFE SCIENCE AND BIOINFORMATICS

(1st Semester)

Course No. : LSBCC–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

1. Write short notes on the following : 7+7=14

(a) Structural variation in chromosome

(b) Multiple allele

OR

2. Write a note on extra chromosomal inheritance. 14

3. What is Hfr strain? How can gene mapping be done by interrupted mating in bacteria? 2+12=14

OR

4. Write notes on the following : 7+7=14

(a) Homologous and non-homologous recombination

(b) Pedigree analysis

5. Write notes on the following : 7+7=14

(a) DNA polymerase

(b) Genetic code

OR

6. Write a note on DNA repair mechanism. 14

7. What are the events at origin of replication during *S*-phase? Write briefly about events in replication fork in prokaryotes. How is fedality maintained after replication? 4+6+4=14

OR

8. Write a note on the post-transcriptional modification/processing of RNA. 14

9. Write a note on the mechanism of apoptosis. 14

OR

10. Write notes on the following : 7+7=14

(a) Oncogenes

(b) Role of chromatin in gene expression

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