2021
B.A./B.Sc.
Fifth Semester
CORE – 11
ZOOLOGY
Course Code: ZOC 5.11
(Molecular Biology)

Total Mark: 70 *Pass Mark: 28*
Time: 3 hours

Answer five *questions, taking* one *from each unit.*

UNIT–I

1. Describe Watson and Crick model of DNA with a neat labelled diagram. 14

2. Differentiate between semi-conservative and bidirectional replication with appropriate illustrations. 7+7=14

UNIT–II

3. Explain the mechanism of transcription in eukaryotes. 14

4. Describe the process of rRNA and mRNA synthesis. 7+7=14

UNIT–III

5. Explain genetic code. Add a note on degeneracy of genetic code. 9+5=14

6. Describe the process of protein synthesis in prokaryotes. Add a note on inhibitors of protein synthesis. 9+5=14

UNIT–IV

7. Define split gene. Explain the mechanism of splicing. Add a note on alternate splicing. 2+8+4=14

8. Describe RNA editing process. Add a note on exon shuffling. 9+5=14

UNIT–V

9. Explain transcriptional regulation through lac operon. Add a note on transcriptional regulation in eukaryotes. 9+5=14

10. Describe pyrimidine dimerization. 14
