

**2022**  
**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 the mechanism of DNA replication in prokaryote. 14
2. Write notes on the following: 7×2=14
  - (a) Bidirectional replication
  - (b) Telomere replication

**UNIT-II**

3. Give an account on various types of eukaryotic transcription factors. 14
4. Explain the prokaryotic and eukaryotic RNA polymerase. 8+6=14

**UNIT-III**

5. Discuss the various inhibitors in protein synthesis. 14
6. Write the difference between prokaryotic and eukaryotic translation. 14

**UNIT-IV**

7. Explain in detail the structural components of globin mRNA. 14
8. Discuss the processing of tRNA. Add a note on introns and exons. 8+6=14

**UNIT-V**

9. Give a comparative account on inducible and repressible operon. 14
10. Explain how transcription is regulated in eukaryote. 14

