# M.Sc DEGREE EXAMINATION, APRIL 2019 I Year II Semester Molecular Biology and Genetic Engineering

## Time : 3 Hours

Max.marks:75

Section A  $(10 \times 2 = 20)$  Marks

### Answer any **TEN** questions

- 1. Z DNA
- 2. Chargaff's rule
- 3. Leading strand
- 4. Ligase
- 5. pBR322
- 6. BAC
- 7. Splicing
- 8. Patents
- 9. RAPD
- 10. PCR
- 11. TATA box
- 12. Western Blotting

**Section B**  $(5 \times 5 = 25)$  Marks

### Answer any **FIVE** questions

- 13. Give an account on structure of tRNA.
- 14. Describe eukaryotic DNA replication with neat diagram.
- 15. Enumerate the salient features of plasmids.
- 16. Write an account of the role of intellectual property rights and TRIP rights.
- 17. Briefly explain the process of DNA finger printing.
- 18. Write a note on artificial chromosome of yeast.
- 19. What are restriction endonucleases? Mention their types.

## Section C $(3 \times 10 = 30)$ Marks

## Answer any **THREE** questions

- 20. Give an account on Watson and Crick model of DNA.
- 21. Explain in detail the transcription process in eukaryotes.
- 22. What are cosmids? How are they used as efficient genetic vectors?
- 23. Give an account of the rDNA technology in general.
- 24. Describe the various steps involved in PCR. Add a note on its significance.

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