

25081

M.Sc. DEGREE EXAMINATION, MARCH/APRIL 2019.

SECOND SEMESTER

Biotechnology

Paper I — MOLECULAR BIOLOGY

Time : Three hours

Maximum : 75 marks

(No additional sheet will be supplied)

PART A — (5 × 3 = 15 marks)

Answer any FIVE questions.

Each question carries 3 marks.

Each answer should not exceed 1 page.

1. Flow of Genetic information.
2. SSB (Single strand binding proteins).
3. Polyadenylation.
4. Prokaryotic RNA polymerase.
5. Structure of tRNA.
6. Protein folding.
7. Gal Operon.
8. Repressor.

PART B — (4 × 15 = 60 marks)

Answer ALL questions.

Each question carries 15 marks.

Each answer should not exceed 6 pages.

9. Explain DNA replication process in Eukaryotes.

Or

10. Write short notes on :
 - (a) Role of Histone proteins in genome organization
 - (b) SOS response.

11. Explain about Transcription and post transcriptional modifications of Eukaryotic transcripts.

Or

12. Write short notes on :

- (a) Termination of RNA synthesis
- (b) Monocistronic RNA.

13. Describe Genetic code.

Or

14. Write short notes on :

- (a) Inhibition of protein synthesis
- (b) Eukaryotic Ribosomes.

15. Write in detail about Lac Operon and its regulation.

Or

16. Discuss hormones and environmental factors affecting Gene expression.

