

Code No.8211

FACULTY OF SCIENCE**B.Sc. (CBCS) V - Semester Examination, November/December 2019****Subject: Biochemistry (Molecular Biology)****Paper : VI – A (DSE E-1)****Max. Marks: 60****Time: 3 Hours****Part – A (5x3 = 15 Marks)****Answer any FIVE of the following eight questions. Each carries THREE marks.**

- ✓ 1. Topoisomerases.
- 2. Griffith's experiment.
- ✓ 3. Inhibitors of RNA synthesis.
- ✓ 4. Sigma factors.
- 5. Genetic code.
- ✓ 6. Ribosome structure.
- ✓ 7. DNA polymerases I, II, III of E.coli.
- ✓ 8. Structure of t-RNA.

Part – B (3x15 = 45 Marks)**Answer all the following THREE questions. Each carries fifteen marks.**

9. (a) Write about models of replication and explain the Messelson-Stahl's experimental proof for semi-conservative model.

OR

- ✓ (b) Describe the bi-directional replication model of E.Coli with a neat suitable diagram.

10. ✓ (a) Explain the initiation, elongation and termination of transcription in prokaryotes.

OR

- (b) Explain the post-transcriptional modifications of eukaryotic m-RNA.

11. (a) What is Lac-operon? Explain the induction and repression of prokaryotic gene expression with reference to Lac operon.

OR

- ✓ (b) Write about Translational events in prokaryotes.
