

Code No. 8215

FACULTY OF SCIENCE

B.Sc. V-Semester (CBCS) Examination, November / December 2019

Subject: Bio-Technology

**(Molecular Biology and Recombinant DNA Technology)
Paper – V (DSC)**

Time: 3 Hours

Max.Marks: 60

**PART – A (5x3 = 15 Marks)
[Short Answer Type]**

Note: Answer any five of the following questions.

- 1 What is reverse transcription?
- 2 Elaborate rho dependent transcription termination
- 3 Write a short note on alternate splicing
- 4 Describe polyadenylation
- 5 What are shuttle vectors?
- 6 Detail polymerase chain reaction and its applications
- 7 Write a short note on arabinose operon
- 8 Explain genetic code.

**PART – B (3x15 = 45 Marks)
[Essay Answer Type]**

Note: Answer all questions from the following.

- 9 a) Explain in detail the various steps of prokaryotic transcription.
OR
b) Write an essay on gene regulation including positive and negative control with examples.
- 10 a) Elaborate on various steps in eukaryotic translation.
OR
b) Explain post-translational modifications.
- 11 a) Write in detail southern blotting, northern blotting and western blotting.
OR
b) Elaborate on various cloning vectors.
