Fifth Semester B.Sc. Degree Examination, October/November 2019

(CBCS Scheme)

Biotechnology

Paper V – GENETIC ENGINEERING

Time : 3 Hours]   *[Max. Marks : 90*

Instructions to Candidates : Draw neat labelled diagrams wherever necessary.

PART – A

Answer any **TEN** of the following :   **(10 × 2 = 20)**

1. Linkel

2. YAC

3. RFLP

4. Palindromic sequences

5. Probes

6. Eco RI

7. Molecular cloning

8. Taq polymerase

9. Cry genes

10. Super weeds

11. Electroporation

12. Genetic diversity.

PART– B

Answer any **SIX** of the following :   **(6 × 5 = 30)**

13. Properties of vector.

14. Colony hybridization.

15. Gene library.

16. Expression of cloned DNA in prokaryotes.

17. Metabolomics.

18. Western blotting.

19. GM foods.

20. Recombinant vaccine.

PART – C

III. Answer any **FOUR** of the following :   (4 × 10 = 40)

21. Explain any two methods of transformation techniques and add a note on their significance.

22. Explain DNA cloning and add a note on its applications.

23. Describe the principle and applications of DNA microarray.

24. Explain the construction and applications of polymerase chain reaction.

25. Explain Maxam Gilbert DNA sequencing.

26. What are GM crops? Explain their applications.