



M.Sc. II Semester Degree Examination, October - 2023

BIOTECHNOLOGY

Genomics and Genetic Engineering

(NEP)

Time : 3 Hours

Maximum Marks : 70

Instructions : (i) Answer **any five** of the following questions with question No. 1 (Q1) **compulsory**. Each question carries **equal** marks.
(ii) Draw neat diagrams wherever necessary.

1. Discuss detailed account on prokaryotic and eukaryotic genome organization. **14**
2. Give an account on tools involved in recombinant DNA technology. **14**
3. Explain the gene cloning expression cassette. **14**
4. Discuss various methods of bacterial transformation and write a note on Insertional inactivation. **14**
5. Explain DNA finger printing and its applications. **14**
6. Discuss the southern blotting and list out its disadvantages. **14**
7. (a) Explain the role of RNA silencing in crop improvement. **7**
(b) Write a note on C-DNA library preparation and its applications. **7**
8. Write note on :
 - (a) BAC **5**
 - (b) Blue - White selection **5**
 - (c) IPR and Patenting **4**

