

M.Sc.(Biotechnology) CBCS Pattern Semester-II  
**PSBIT-107 - Paper-III : Molecular Biology and Bioinformatics**

P. Pages : 1

Time : Three Hours



**GUG/W/23/11193**

Max. Marks : 80

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Notes : 1. All questions are compulsory and carries equal marks.

- 1.** Describe molecular markers in detail. **16**
- OR**
- a) Discuss holiday junction model for Homologous recombination. **8**
- b) Explain fluorescence in situ hybridization for genome analysis. **8**
- 2.** Explain in detail biochemistry of ribozyme and applications of ribozyme technologies. **16**
- OR**
- a) Give the information about epigenetics. **8**
- b) Discuss the direct chemical modification of DNA. **8**
- 3.** Write characteristics of cancer cell and describe different methods to study cancer. **16**
- OR**
- a) Positive factors affecting angiogenesis. **8**
- b) Write a short note on DNA viruses and cancer. **8**
- 4.** Define data base management and describe various types of data and its applications. **16**
- OR**
- a) Discuss the concept of networking regarding public domain resources in biology. **8**
- b) Give an account on computer organization hardware & software. **8**
- 5.** a) Write a note on RFLP map? **4**
- b) Add a note on basic concept of RNAi. **4**
- c) Write a note on p53 genes? **4**
- d) Give brief idea about BLAST and PubMed. **4**

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