

M.Sc. (Biotechnology) (NEP Pattern) Semester-II
NEP-98 / 02MSCBT03 - Paper-III : Molecular Biology & Bioinformatics

P. Pages : 1

Time : Three Hours



GUG/W/24/15335

Max. Marks : 80

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- Notes :
1. All the questions are compulsory.
 2. All questions carry equal marks.
 3. Draw the diagram wherever it is necessary.

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|-----------|---------------------------------------------------------------------------------------|-----------|
| 1. | Explain in detail molecular mapping of genome. | 16 |
| | OR | |
| | a) Explain Cre/Lox recombination? | 8 |
| | b) Describe in brief about- Fluorescence in situ hybridization analysis. | 8 |
| 2. | Describe Principle, Procedure and applications of chromatin marking system. | 16 |
| | OR | |
| | Write a note on: | |
| | a) Basic concept of RNAi. | 8 |
| | b) Direct chemical modification of DNA. | 8 |
| 3. | Define angiogenesis and explain positive and negative factors affecting angiogenesis. | 16 |
| | OR | |
| | a) Gives details on polyoma virus as a cancer causing agent? | 8 |
| | b) Give the information about oncogenes and suppressor genes. | 8 |
| 4. | Define data base management and describe various types of data and its applications. | 16 |
| | OR | |
| | a) Give idea about BLAST? | 8 |
| | b) Write about Tools of drug designing. | 8 |
| 5. | Write a note on the following. | |
| | a) Holiday Junction. | 4 |
| | b) Antisense technology. | 4 |
| | c) Methods to study cancer. | 4 |
| | d) Proteomic databases. | 4 |
