

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

P. Pages : 1

Time : Three Hours



GUG/S/25/15335

Max. Marks : 80

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

1. Describe in brief molecular mapping of genome? 16

OR

- a) Discuss Holiday Junction Model for Homologous recombination. 8
b) Explain southern in situ hybridization for genome analysis. 8

2. Describe Principle, Procedure and applications of chromatin marking system. 16

OR

- a) Antisense technology and applications. 8
b) Direct chemical modification of DNA. 8

3. Define angiogenesis and explain positive and negative factors affecting angiogenesis. 16

OR

- a) Write about erb-B as oncogene and p53 as suppressor gene. 8
b) Describe cancer stem cells. 8

4. Define data base management and describe various types of data and its applications. 16

OR

- a) Idea of BLAST. 8
b) Tools of drug designing. 8

5. Write a note on the following.

- a) Write a note on RFLP map? 4
b) comment on cancer and DNA viruses-SV40 and adenovirus. 4
c) What is ribozyme technology? Explain. 4
d) Public domain resource in biology. 4
