

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

P. Pages : 1

Time : Three Hours



GUG/S/23/11193

Max. Marks : 80

1. What is homologous recombination? Explain with the help of example. **16**

OR

Write a note on

a) Genetic map **8**

b) Fluorescence In situ-Hybridization. **8**

2. Describe mechanism and biochemistry of antisense molecule. Add a note on hammerhead ribozyme. **16**

OR

Explain in brief.

a) Chromatin marking systems. **8**

b) Direct chemical modification of DNA. **8**

3. Describe the positive factors affecting angiogenesis. **16**

OR

Write a note on.

a) Polyoma virus. **8**

b) Adeno virus **8**

4. Describe the genetics of cancer with reference to ras, erb-B and suppressor genes. **16**

OR

Explain

a) BLAST, ENTREZ and PUBMED. **8**

b) Brief idea of data types and designing of data types. **8**

5. Write a note on

a) Molecular markers. **4**

b) Applications of antisense technology. **4**

c) Cancer stem cells **4**

d) Operating systems. **4**
