

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

P. Pages : 1

Time : Three Hours



GUG/W/18/11193

Max. Marks : 80

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1. Discuss in detail about Southern and fluorescence in situ hybridization for genome analysis. **16**
- OR**
- a) Discuss Holiday junction model for Homologous recombination. **8**
- b) Give an account on genetic and physical maps. **8**
2. Give detail account on Antisense and ribozyme technology and its applications. **16**
- OR**
- a) Give the information about epigenetics. **8**
- b) Discuss the direct chemical modification of DNA. **8**
3. What is Angiogenesis? Discuss in detail about various positive and negative factors affecting angiogenesis. **16**
- OR**
- a) Discuss about polyoma virus and adenovirus regarding to cancer. **8**
- b) Give the information about oncogenes and suppressor genes. **8**
4. Give detail account on database management and genomic proteomic and metabolic pathways databases. **16**
- OR**
- a) Give an account on computer organization. **8**
- b) Discuss about concept of internet and public domain resources in biology. **8**
5. Solve the following.
- a) Give the application of molecular markers in forensic and disease prognosis. **4**
- b) Discuss the basic concepts of RNAi. **4**
- c) Give the information about biochemical parameters acquired by metastatic cells. **4**
- d) Give brief idea about BLAST and ENTREZ. **4**
