DI-1704
M. Sc. (Int. Biotechnology) (Sem. IX) Examination
March / April - 2016
BT-3002 : Advances in Molecular Biology
(New Course)

Time: 3 Hours] [Total Marks: 70

Instruction:

Answer the following questions (Any Two). (18)

A. Discuss the important role played by E. coli as a model organism of genetic studies.

B. Enlist and explain the contributions of Saccharomyces cerevisiae as an ideal system of molecular biology.

C. Write the characteristics and contributions of Mus Musculus (Mice) as a model organism of modern biology.

Answer the following questions (Any Two). (18)

A. Discuss the uses of DNA markers in genome mapping.

B. Explain next generation sequencing technology.

C. Describe the assembly of contiguous DNA sequence by clone contig method.

D. Write in the brief about human genome project.

Answer the following questions (Any Two). (18)

A. Write in details on ROMA.

B. Discuss any one technique for SNP genotyping.

C. Explain the role of environmental factors in cancer.

D. Describe the role of apoptosis in tumor survival and growth.
4 Answer the following questions (Any Two).

A. Discuss the applications of DNA profiling for the identification of individuals.
B. Explain the role of SNPs in the forensic sciences.
C. Elaborate the STR method of DNA profiling.