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(20721) Roll No. .  
B.Sc. (Bio Tech.)-III Year

## NS-3479 (CV-II)

**B.Sc. (Biotechnology) Examination,**

**June-2021**

### **GENOMICS AND PROTEOMICS**

**(B-307)**

**B.Sc. (Biotech.)**

*Time : 1½ Hours ] [Maximum Marks : 75*

**Note :** Attempt any **two** questions. **All** question carries equal marks.

1. How do the DNA-Chips and micro arrays help in genomics and proteomics studies?
2. Write a detailed account of various techniques of Proteomics in cancer research.

3. Write notes on :
  - (a) Yeast two hybrid system and their applications.
  - (b) Modelling protein mutants.
4. What do you mean by Mapping? Write its kinds and differentiate between genetic map and Physical map.
5. Write notes on :
  - (a) DNA polymorphism and treatment of diseases.
  - (b) Pharmacogenomics and Industry.
6. Write notes on :
  - (a) Mass spectrometry.
  - (b) 2-D Page.
7. Write notes on :
  - (a) Evolution of nuclear and cellular genomes.

**NS-3479 (CV-II)/2**

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- (b) DNA based phylogenetic trees.
8. Write an essay on concepts and approaches to proteomics and analysis of data using web based tools.
9. Write notes on :
- (a) Genomes and human evolution.
  - (b) Clone by clone sequencing.
10. What is MALDI, compare it with other methods of ionization MS and discuss their merits and demerits.