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(20620) Roll No.
B.Sc. (Biotech.)-III Year

NS-3479 (CV)

**B.Sc. (Biotechnology) Examination,
June- 2020
Genomics and Proteomics
(B-307)**

Time : Two Hours] [Maximum Marks : 75

Note : Attempt any **four** questions. **All** questions carry equal marks.

- ① What is Whole Genome Shotgun (WGS) approach? Discuss the use of WGS approach for human genome sequencing
2. Discuss different methods available for proteome analysis.
3. Write detailed note on :
 - (a) Mass spectrophotometry
 - (b) Use of 2-D- PAGE is protein analysis.
4. Define genetic polymorphism and discuss the role of single nucleotide

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polymorphisms (SNPs) in human diseases.

5. Write short notes on the following :
 - (a) Restriction site polymorphism
 - (b) EST Contigs
 - (c) Pharmacogenomics
6. How do the DNA-Chips and micro arrays help in genomics and proteomics studies.
7. What is MALDI? Compare MALDI with other methods of ionization for MS and discuss their relative merits and demerits.
8. What is Mapping? Write its kinds. Differentiate between genetic map and physical map.
9. Write short note on :
 - (a) Yeast two hybrid system
 - (b) Bioinformatics tools for insillico proteomics research
 - (c) Sanger's method of sequencing
10. Discuss the use of various techniques of proteomics in Cancer research.

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