

**SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN
(AUTONOMOUS)**

**(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)
Chromepet, Chennai — 600 044.**

M.Sc. - END SEMESTER EXAMINATIONS NOVEMBER - 2022

SEMESTER - III

20PPBET3004 - Bioinstrumentation & Bioinformatics

Total Duration : 2 Hrs 30 Mins.

Total Marks : 60

Section A

Answer any **SIX** questions ($6 \times 5 = 30$ Marks)

1. Illustrate about principles of ultrafiltration in detail.
2. Describe in detail about the process of electrophoresis.
3. Prepare a brief note on Colorimetry.
4. Describe in detail about Fluorescence Microscopy.
5. List the two types of sequence analysis in detail.
6. Compute notes on Prosites database.
7. Explain about the scope of bioinformatics in scientific research.
8. Organize a brief note on Target identification – Target Validation in drug discovery.

Section B

Part A

Answer any **TWO** questions ($2 \times 10 = 20$ Marks)

9. Describe in detail about High Performance Liquid Chromatography (HPLC).
10. Relate the importance of NMR Spectrophotometry for elemental analysis.
11. Examine about Transmission Electron Microscopy.
12. Evaluate the importance Protein sequence data base – SWISS PROT.

Part B

Compulsory question ($1 \times 10 = 10$ Marks)

13. Justify the applications of Pharmacogenomics and Pharmacogenetics in drug discovery.

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