

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.

B.Sc. END SEMESTER EXAMINATION APRIL/NOV - 2021

SEMESTER - V

16UPBCT5A11 & UPB/CT/5A11 - Bio Instrumentation, Bio Informatics and Bio Statistics

Total Duration : 3 Hrs	Total Marks : 75
MCQ : 30 Mins	MCQ : 15
Descriptive : 2 Hrs.30 Mins	Descriptive : 60

Section B

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

1. Give an account on the functions of Scanning Electron Microscopy (SEM).
2. Discuss upon the important fixatives and stains in use.
3. Explain the working mechanism of Spectrophotometer.
4. Types and applications of centrifuge – Discuss in brief.
5. Write short notes on (a) Numerical aperture and (b) DDBJ
6. What are the steps involved in the preparation of a whole mount?
7. Write short notes on test of significance.
8. What is bioinformatics? Explain its applications in genomics and proteomics.

Section C

Answer any **THREE** questions ($3 \times 10 = 30$ Marks)

9. Explain the working mechanism of Transmission Electron Microscopy (TEM) with a neatly labelled diagram.
10. Give a detailed account on the steps involved in the preparation of permanent slides.
11. Gas chromatography – Discuss in detail with a neatly labelled diagram.
12. Write an essay on the measures of central tendency in detail.
13. Importance and types of biological databases in Bioinformatics – Discuss in detail.