

B.Sc. Semester - 5 (NEP-2020) Examination

Oct/Nov - 2025

BIT: Analytical Methods and Approaches (Theory) (Minor-4)

Time: 2:00 Hours

Marks: 50

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate marks.

Que.1 Write short note:

- (1) Short note on working mechanism of light microscope. (05)
- (2) State the importance of electron microscopy. (05)

OR

- (1) Write the principle of confocal microscopy. (05)
- (2) Fluorescence microscopy. (05)

Que.2 Write short note:

- (1) Brief note on colorimetry. (05)
- (2) Write about cell fractionation techniques. (05)

OR

- (1) A brief note on UV-Visible spectrophotometry. (05)
- (2) Note on any two-centrifugation method. (05)

Que.3 Write short note:

- (1) Principle and application of paper chromatography. (05)
- (2) Explain thin layer chromatography. (05)

OR

- (1) Gel filtration chromatography. (05)
- (2) Write note on HPLC. (05)

Que.4 Write short note:

- (1) Explain SDS-PAGE technique. (05)
- (2) Principle of agarose-gel electrophoresis. (05)

OR

- (1) Discuss Western blotting technique. (05)
- (2) Note on isoelectric focusing. (05)

Que.5 Write short note:

- (1) Absorption fluorimetry. (05)
- (2) A brief note on phase contrast microscopy. (05)

OR

- (1) Write in short about ion-exchange chromatography. (05)
- (2) Immuno-electrophoresis. (05)
