

**55014**

Seat No. \_\_\_\_\_

**M. Sc. (Part - I) Examination**

April / May – 2003

**Biomedical Technology : Paper - I**

*(Instrumentation & Methodology)*

Time : 3 Hours]

[Total Marks : 75

**NB: All questions carry equal marks.  
All questions are compulsory.  
Illustrate your answers with neat diagrams wherever necessary**

1. Describe the principle, working and applications of:
  - a). Confocal Microscope
  - b). Transmission Electron Microscope

**OR**
1. Describe:
  - a). Tissue fixation and processing for Light Microscopy
  - b). Methods to set up Primary cultures
2. Write an account on:
  - a). Tidalization technique. State its principle and uses
  - b). Hot air oven. State its uses

**OR**
2. Explain:
  - a). Differential and special staining techniques. State the principle and uses of any one technique of each type
  - b). Preparation of N- agar for isolation of bacteria
3. Discuss:
  - a). Beer Lambert's Law and related instruments
  - b). Flame Emission Spectrophotometry

**OR**
3. Discuss:
  - a). HPLC
  - b). Types of Epithelia
4. Describe:
  - a). Cell types of connective tissue
  - b). Histology of Liver and Kidney

**OR**
4. Discuss:
  - a). Ultrastructure and functions of mitochondria
  - b). Ribosome
5. Write short notes on **any three** of the following:
  - a). Preparation of glassware for microbiological work
  - b). pH and its measurement
  - c). Cryostat
  - d). Meiosis I
  - e). Basis of Cytochemical staining in animal cell
  - f). ECG

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