55014

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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