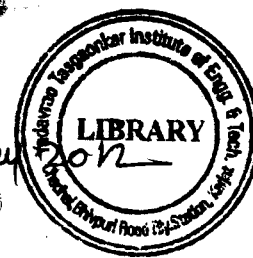


- N.B. : 1. Question No. 1 is compulsory
 2. Attempt any four questions out of remaining six questions
 3. Figures to the right indicate full marks
 4. Assume suitable data wherever necessary

YTIET/LIB/ENGG/BM/SEM-V/BI-I/28 May 2012



- Q1 Write short notes on 20
- Electrophoresis
 - Dye dilution method for cardiac output measurement
 - Spirometer
 - Colorimeter
- Q2 A Define various lung volumes and capacities with spirogram. 10
 B What is ventilator? Explain the classification and controls of ventilators in detail. 10
- Q3 A Describe ultrasonic blood flow (Doppler) method for blood flow measurement through artery along with governing doppler equation. 10
 B Explain anesthesia machine with a neat block diagram 10
- Q4 A Explain the basic principle of electromagnetic blood flow meter with constructional diagram and suitable waveforms. 10
 B Explain any one method of blood cell counter with its basic principle and constructional diagram 10
- Q5 A Explain the evoked response audiometry system with suitable block diagram. 10
 B What is heart lung machine? Explain its working with constructional diagram. 10
- Q6 A Explain autoanalyser system with the help of neat diagram and explain function of each block 10
 B What is audiometry? Explain pure tone audiometer with its block diagram. 10
- Q7 A What is basic principle of spectrophotometer with suitable diagram? 05
 B What is oximetry? Explain the basic principles of two types of blood oximetry along with their constructional details. 10
 C Write short note on Electrolyte analyzer. 05

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