

Biomedical Instrumentation - I
T.E - BM/Rev V/BMI-I

(L)

(15)

25/5/15

Q.P. Code : 3350

(3 Hours)

(Total Marks :80)

- N.B. : (1) Q.No. 1 is compulsory.
 (2) Attempt any three questions from remaining five questions.
 (3) Figures to the right indicate full marks.
 (4) Assume suitable data wherever necessary.

- | | |
|---|----|
| 1. (a) Explain the P _{CO2} electrode | 05 |
| (b) Explain impedance plethysmography | 05 |
| (c) PH electrode | 05 |
| (c) Explain any one oxygenerator | 05 |
| 2. (a) Explain block diagram of heart lung machine | 10 |
| (b) Explain coulter blood cell counter with a neat diagram. | 10 |
| 3. (a) Explain protein separation using electrophoresis. | 10 |
| (b) Explain using a spirogram various lung volumes and capacities | 10 |
| 4. (a) Explain various modes of ventilators. | 10 |
| (b) Explain the block diagram of Autoanalyzer | 10 |
| 5. (a) Explain evoked response audiometry | 10 |
| (b) Explain the optical ray diagram of spectrophotometer | 10 |
| 6. Write short notes on (any four) : | 20 |
| (a) Chromatography | |
| (b) Pneumotachometer- Any one in detail | |
| (c) Indicator dilution technique for cardiac output measurement | |
| (d) ELISA | |
| (e) Electromagnetic blood flow meter | |

JP-Con. 10323-15.