

**B.Sc. CRITICAL CARE TECHNOLOGY
THIRD YEAR**

PAPER I – ICU MONITORING - II

Q.P Code : 801221

Time : Three Hours

Maximum : 100 Marks

Answer All Questions

I. Elaborate on:

(3 x 10 = 30)

1. Draw a normal Intra-arterial pressure trace and label the parts? Describe the setting up, Zeroing, Levelling and calibration of invasive pressure monitoring system? Add a note on overdamping and underdamping?
2. List the initial ventilator settings for a patient with Chronic Obstructive Pulmonary Disease. Add a note on Auto-PEEP (air trapping). Describe the steps in troubleshooting a ventilator giving low tidal volume alarm.
3. Describe management of Airway in an unconscious patient who does not have a definitive airway. Add a note on management of airway in patient with suspected cervical spine injury.

II. Write Notes on:

(8 x 5 = 40)

1. Post resuscitation care.
2. ETCO₂ (end tidal carbon dioxide) Monitoring.
3. Compliance and Resistance of respiratory system.
4. Principles of Pulse Oximetry and its Pitfalls.
5. Defibrillator.
6. High Flow Oxygen delivery devices.
7. Endotracheal suctioning.
8. Methods of sterilization of ventilator.

III. Short Answers on:

(10 x 3 = 30)

1. Draw the sequence of Basic Life Support.
2. List the sites for placement of Pulse Oximeter probe, list the causes for inaccurate readings.
3. List the sites of lead placement for a 12 lead ECG.
4. Ventilator alarm limits settings for an adult patient with ARDS.
5. List the steps in extubation of a patient.
6. List the different methods of sterilization.
7. List the Investigations done to assess coagulation abnormality.
8. PO₂/FIO₂ ratio (PFR).
9. List the different types of circulatory shock.
10. List the causes for difficulty in weaning a patient on ventilator.