

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

Paper II – ICU EQUIPMENTS

Q.P Code : 801222

Time: Three Hours

Maximum : 100 Marks

Answer All Questions

I. Elaborate on:

(3 x 10 = 30)

1. What are the causes for High peak inspiratory pressure alarms? List them in detail and write the methods of trouble shooting each of the cause?
2. What are the indications, contra indications, advantages and disadvantages of Non-Invasive mechanical ventilation? Write each in detail.
3. Write down the pre use check calibration procedure of a mechanical ventilator.

II. Write Notes on:

(8 x 5 = 40)

1. Name the common chemical agent used for chemical sterilization, its strength, preparation, life span and the types of items sterilized using this agent.
2. What are the two ventilator settings that would impact oxygenation and two settings that would impact PaCO₂?
3. Write short notes on the importance of humidification during mechanical ventilation.
4. What is the normal range of cuff pressure used in ET tube? Write down the three important benefits of the adequate inflation of the cuff.
5. Define auto PEEP and what step you would take to troubleshoot auto PEEP?
6. Write short notes on Biphasic Defibrillator.
7. List out the various alarms you witness during mechanical ventilation.
8. Short notes on zeroing for IBP monitoring.

III. Short Answers on:

(10 x 3 = 30)

1. Write down the internationality coded colors for different Venturi devices and their respective percentage of oxygen delivery.
2. What will happen if cuff pressure is kept higher than the required level during mechanical ventilation?
3. What is the role of flow sensor in mechanical ventilation?
4. What are the parameter settings that you set up in APRV mode?
5. What are the color codes used for disposing wastes and write down the specific types of wastages disposed in each color coded container?
6. Write the principle on which ASV mode is functioning.
7. What is the difference between 12 lead and 5 lead ECG?
8. Write down 3 precautionary steps that you will take just before discharging electric shock to the patient through defibrillator?
9. Define electrocardiogram.
10. Write down the normal range of pH, PaCO₂ and PaO₂ in an arterial blood?
