

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 common vital parameters that would be monitored on a multi parameter monitor? Write in detail about the setting up for IBP monitoring and the procedure of zeroing?
2. Write the indication of APRV mode and explain in detail about functioning of APRV mode.
3. Write down the names of the equipments used in ICU for monitoring, therapeutic and diagnostic purposes under separate headings and their specific uses against each of the equipment.

II. Write Notes on:**(8 x 5 = 40)**

1. Write short notes on the mechanism of CPAP including the indications.
2. What are the causes for low peak inspiratory pressure alarm and how do you troubleshoot the same?
3. How many triggering (sensitivity) types are available in mechanical ventilators? Write briefly about each of them.
4. What are the special settings you would consider to set up when you connect the mechanical ventilator to an intubated ARDS patient?
5. Write short notes on the stepwise weaning process that you would follow before extubation.
6. Write short notes on Incentive spirometer and its uses in ICU.
7. Name the parameters directly measured by Blood Gas Analyzer and name the parameters derived from the measured ones.
8. Write short notes on oxygen toxicity.

III. Short Answers on:**(10 x 3 = 30)**

1. Name any of the two equipments which measure peripheral oxygen saturation of a patient?
2. What are the tests done to evaluate patient's suitability for extubation?
3. Name some of the personal protective equipments used by persons who are intubating a patient?
4. Write down the names of the five sites of the placement of chest electrode leads on the chest while you are connecting the monitor.
5. In which mode of the mechanical ventilation, pressure support is more beneficial? How does pressure support helps in that mode?
6. What is the difference between pressure support and IPAP?
7. Draw a normal ECG waveform curve and label the specific points of the wave form pattern.
8. Draw the Bain's circuit and label the parts.
9. Draw a normal scalar graph of pressure Vs Time of mechanical ventilation and label the inspiratory phase and expiratory phase.
10. Name two anticoagulants that are commonly used in ABG analysis.
