

**B.Sc. RESPIRATORY THERAPY**  
**SECOND YEAR**  
**PAPER IV – EQUIPMENTS IN RESPIRATORY CARE**

*Q.P. Code: 802614*

**Time: Three Hours**

**Maximum: 100 Marks**

**Answer all questions**

**I. Elaborate on:** **(3 x 10 = 30)**

1. Recommendations for Storage and Use of Medical gases by The National Fire Protection Association and The Compressed Gas Associations.
2. Endotracheal Tube – Tube Markings, Indications, Contraindications, Technique of Insertion, Confirmation of placement, and Complications of Intubation.
3. Non Invasive Ventilation – Indication, Contraindication, Interfaces and Steps in Initiating Non Invasive Ventilation.

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

1. Heat Moisture Exchanger – Types and Working principle.
2. Abnormal waveforms of a Capnograph and its treatment.
3. Pitfalls of a Pulseoximeter.
4. Safety Mechanisms in AMBU.
5. Factors affecting Aerosol Therapy.
6. Power Source or Input power of a Ventilator.
7. Describe about Macintosh Blade and explain the technique of insertion.
8. Non Rebreathing Mask – Indications, Principle and Limitations.

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

1. Relative Humidity.
2. Beer's and Lambert's law.
3. Indications of a Peak Flow Meter.
4. Nasal Prongs.
5. Isothermic Saturation Boundary.
6. Oropharyngeal Airway – Indications, Contraindications and Technique.
7. Venturi Principle.
8. Describe Miller Blade.
9. Estimate the duration of gas if a portable liquid O<sub>2</sub> container contains 3 lb of liquid O<sub>2</sub> that supplies an O<sub>2</sub> delivery device running at 2 L/min.
10. Determine how long a G cylinder of O<sub>2</sub> with a gauge pressure of 1800 psi set to deliver 6 L/min will last until empty?

\*\*\*\*\*