[LP 0819] AUGUST 2019 **Sub. Code: 1218**

B.Sc. CRITICAL CARE TECHNOLOGY
(New Syllabus 2014-2015 & 2015-2016)

SECOND YEAR

PAPER III – ICU MONITORING I (BASIC) AND BIOMEDICAL ENGINEERING

Q.P. Code: 801218

Time: Three Hours **Maximum: 100 Marks**

Answer all questions

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

1. Pulse oximetry - Principals, advantages and pitfalls in monitoring.
2. What are the methods and significance of measuring the following Lung volume and flow in ICU :
   a) Tidal volume b) Vital capacity.
   c) Increased Peak pressure d) Positive End Expiration Pressure (PEEP)
3. List the indications for Intubation. How to assess difficult Airway? Describe the procedure for Rapid Sequence Intubation.

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

1. Evaluation of Acute chest pain.
2. Arterial Blood gas parameters.
3. Complications during Haemodialysis.
4. Multiparameter Monitor.
5. Prophylaxis in deep vein thrombosis.
6. Management of Pneumothorax.
7. What is Resistance and Capacitance?
8. Post Resuscitation Care.

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

1. What is normal Minute Ventilation?
2. Draw ECG Change with Myocardial Ischaemia.
3. Draw End Tidal CO_2 trace in Obstructive Airway disease.
4. Draw End tidal CO_2 change with cardiac arrest or low cardiac output.
5. Acquired Cross infections in ICU.
6. Draw CVP trace and label.
7. List 3 causes of damping.
8. List methods of ICP monitoring.
9. List pitfalls of NIBP monitoring.
10. What is normal Oxygen consumption (in ml/minute)? List factors affecting Oxygen consumption.

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