

[LM 0218]

FEBRUARY 2018

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. Advantages and disadvantages of Prone Positioning for respiratory failure.
2. Advantages and disadvantages of various modes of temperature monitoring in the ICU.
3. Pulse oximetry - Principals, advantages and pitfalls in monitoring.

II. Write notes on:

(8 x 5 = 40)

1. End Tidal Co₂ monitoring.
2. Alveolar Gas equation.
3. Dead Space.
4. Shunt.
5. V/Q mismatch.
6. Monitoring renal function in ICU.
7. Monitoring of sedation in ICU.
8. Zeroing the transducer.

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 CO₂ trace in Obstructive Airway disease.
4. Draw End tidal Co₂ change with in cardiac arrest or low cardiac output.
5. List 5 Methods to confirm endotracheal intubation.
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.
