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**B.Sc. IN ANAESTHESIA AND CRITICAL CARE
TECHNOLOGY (BACT)**

Term-End Examination

December, 2012

**BAHI-076 : EQUIPMENT CARE AND
MAINTENANCE**

Time : 3 hours

Maximum Marks : 70

PART-A

Answer *any five* questions. Each question carries
8 marks. **5x8=40**

1. What are the constraints in the design of medical instrumentation system ?
2. What are the types of transducers ? Write in detail about pressure transducers.
3. Describe autoclaving in detail.
4. What are the various modes that are set on the ventilators ? Write briefly about any 3 of them.

5. Draw a normal ECG pattern in a cardiac cycle mentioning the time interval. Mention the event responsible for the wave.
6. How is monitoring of a patient and the ventilator done during mechanical ventilation ?
7. Describe in detail non invasive ventilation.
8. Mechanics of normal ventilation and mechanical ventilation.

PART-B

Write short notes on *any five* of the following.

Each question carries 6 marks.

5x6=30

1. What are the precautions taken when using laser in medical practice ?
2. Monitoring during BIPAP ventilation
3. What are the electrode gellies and creams used in clinical practice ? Mention properties of an ideal gel.
4. Ethylene oxide sterilization.
5. Describe the procedure of tracheal suctioning in an intubated patient.
6. Sources of biomedical signals.
7. Sixty two year man with history of cancer, status post abdominal surgery for drainage of abscess. The arterial blood gas shows the following. What is the diagnosis ? How do you manage ?
pH = 7.12, PaO₂ = 192, PaCO₂ = 35, HCO₂ = 13
SaO₂ = 97.5%,
8. Microbiological surveillance and sampling of operation theatre.