

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

**Term-End Examination  
June, 2013**

**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 sources of bio medical signals ? Write in brief about them with help of diagram.
2. What are the ventilatory settings you will use for a man weighing 50 kg. He is paralyzed with muscle relaxants and ventilated. Volume controlled mode of ventilation (CMV) is used.
3. Describe microbiological surveillance and sampling.
4. Describe the different types of electrodes used for recording ECG.

5. Complications of mechanical ventilation.
6. Describe transducer for body temperature measurement mentioning its advantages. How do you convert temperature measured in degree Celsius to Fahrenheit ?
7. What are the differences between volume controlled and pressure controlled ventilation ?
8. Describe synchronized intermittent mandatory ventilation (SIMV)

## PART - B

Write short notes on *any five* of the following. Each question carries *six* marks.

5x6=30

1. CO<sub>2</sub> laser
2. How do you set up a pressure transducer for invasive arterial blood pressure monitoring ?
3. Classification of transducers.
4. Positive End Expiratory Pressure (PEEP)
5. Glutaraldehyde sterilization
6. Indications for mechanical ventilation
7. 34 year old man, with 85% total body surface area burn. The patient is sedated, paralyzed, and is mechanically ventilated. The arterial blood gas shows the following. What is the diagnosis ? How do you manage ?  
pH - 7.30, PaO<sub>2</sub> - 126, PaCO<sub>2</sub> - 60, HCO<sub>3</sub> - 28, BE - +4, SaO<sub>2</sub> - 98%.
8. Endotracheal tube for laser surgery.