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

**Term-End Examination  
December, 2012**

**BAHI-082 : BIOMEDICAL INSTRUMENTATION**

*Time : 3 hours*

*Maximum Marks : 70*

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**PART - A**

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

1. Describe the drug delivery systems in common use.
2. Safety features in modern anaesthesia machine.
3. Essential components of anaesthesia work station.
4. Describe intermediate pressure system of anaesthesia machine.

5. Describe a normal capnogram and capnograms in the following situations with the help of diagrams.
  - (a) Rebreathing
  - (b) Obstruction in airway
  - (c) Curare cleft
  
6. Precautions to be taken to prevent burns and physical injury in operation room.
  
7. What is the importance of Lead  $11$ ,  $CM_5$  and  $CB_5$  leads in ECG monitoring ? Describe the placement of the leads and advantages of the same.
  
8. Describe respiratory volumes and capacities with the help of a diagram.

## PART - B

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

Each questions carries 6 marks.

5x6=30

1. Pin index system.
  2. Describe in brief vaporiser mounting system.
  3. Oxygen flush valve.
  4. Minimum machine check under life threatening condition (emergency cesarean section).
  5. Universal leak test for anaesthesia machine.
  6. Principle of pulse Oxymetry.
  7. Transesophageal echoardiography (TEE).
  8. Safety measures while using surgical diathermy.
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