

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

**Term-End Examination**

**December, 2013**

**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. What are the effects of electrical current on the human body and what all precautions are taken to minimize electrical shock hazards ?
2. Describe mention the safety features in modern anaesthesia machine.
3. Describe the direct method of monitoring blood pressure(arterial and venous) with the help of diagram.
4. Write in detail the pulmonary functions tests and the importance.
5. With the help of a diagram draw a normal capnogram and label the phases. Draw the graphs for rebreathing, obstructed airway and curare cleft.

6. What are pace makers and its uses ? Write in detail about the implantable pace maker.
7. How will you set up an infusion pump for dopamine for a 60kg patient at the rate of 5 micro gram per kg per min ? Dopamine 5cc is 200mg syringe pump 50cc
8. Describe anaesthesia machine check including high pressure system; low pressure system and breathing system.

### PART-B

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

Each question carries **6** marks :

**5x6=30**

1. Flow meter.
  2. Defibrillator.
  3. Vaporizer mounting system.
  4. Cardiac output measurement.
  5. Oxygen cylinder.
  6. Temperature monitoring.
  7. Head position in ECG
  8. Central venous pressure.
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