

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

00653

Term-End Examination

June, 2012

BAHI-072 : ANAESTHESIA EQUIPMENT

Time : 3 Hours

Maximum Marks : 70

PART - A

1. (a) Fill in the blanks : **1x10=10**
- (i) Pin Index of air is _____ .
 - (ii) Fresh Gas Flow in Jackson Rees Circuit should be _____ times the minute volume of the patient.
 - (iii) The pressure of O₂ from the cylinder is reduced by pressure reducing device to _____ psi.
 - (iv) Major component of Soda Lime is _____ .
 - (v) _____ laryngoscope is a straight blade laryngoscope.
 - (vi) One of the anatomical causes of difficult mask ventilation is _____.
 - (vii) _____ is the part of the flowmeter which prevents the float from plugging the outlet.
 - (viii) Jackson Rees circuit is used in children less than _____ kg. body weight.
 - (ix) _____ is the amount of heat required to raise the temperature of 1 ml of substance by 1°C.
 - (x) LMA of size 4 has a cuff inflation volume of _____ ml.

(b) State whether the statements are *true* or *false* : 1x10=10

- (i) Cuff of endotracheal tube helps to measure the intrathoracic pressure.
- (ii) Entonox has a pin index of 4.
- (iii) Pressure in half filled N₂O cylinder is 375 psi.
- (iv) The Mapleson D breathing system is also called the Jackson Rees modification of Ayre's T-piece.
- (v) The Pethik's test is used to test the closed circuit.
- (vi) LMA Fastrach is designed to provide protection against aspiration of gastric contents.
- (vii) Bourdon's pressure gauge indicates the pressure in the gas cylinder.
- (viii) Mapleson A circuit is ideal for controlled ventilation.
- (ix) Baralyme is a mixture of BaCl₂ and Ca(OH)₂.
- (x) The McCoy laryngoscope has a hinged tip.

PART - B

Answer *any three* questions. Each question carries
10 marks.

10x3=30

2. Name the parts of the low pressure system of the Boyle's apparatus and describe the flowmeter with suitable diagram.
3. Draw a labelled diagram of LMA. Mention the advantages and disadvantages of LMA over face mask and endotracheal tube.
4. What are the precautions to be taken during storage and transport of medical gas cylinders ?
5. Write the advantages and disadvantages of the circle system.
6. What are the safety features on an Anaesthesia machine ?

PART - C

7. Write short notes on *any five* of the following : 4x5=20
- (a) Tests for Bain's breathing system
 - (b) Flow Control Valve
 - (c) MLS tube
 - (d) Ambu Bag
 - (e) Features of ideal breathing system
 - (f) Universal leak test
 - (g) Soda Lime
 - (h) Checking endotracheal tube position after intubation.
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