



**GOVERNMENT OF KERALA  
DIRECTORATE OF MEDICAL EDUCATION  
DOTAT COURSE REGULAR EXAMINATION MAY 2023**

**DOTAT-S-I-MAY 2023**

Time -3hrs.

**PAPER-I**

Max.marks: 100

**BASIC SCIENCES INCLUDING PHARMACOLOGY  
(Answer Section A & B separately, draw diagrams wherever necessary)**

**SECTION -A**

- I. Write Short notes on : (10x5=50)
- a. Anatomy of Brachial Plexus with diagram
  - b. Liquid oxygen
  - c. Where do you level and how do you zero an arterial line
  - d. Vasopressin
  - e. What is SpO<sub>2</sub>? How is it measured?
  - f. Define cardiac arrest. Explain BLS.
  - g. Pasteurization
  - h. Entonox
  - i. Vecuronium
  - j. Sphygmomanometer

**SECTION-B**

- II. Write shorts notes on: (10x5=50)
- a. Basic monitors used in anesthesia
  - b. Systemic circulation
  - c. Compare atropin and glycopyrolate
  - d. Drugs used in cardiac arrest
  - e. Blood products
  - f. Reversal agents used in general anesthesia
  - g. ASA grading
  - h. Morphine
  - i. Halothane
  - j. Oxygen Concentrator

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**DOTAT-S-II-MAY 2023**

Time -3hrs.

**PAPER-II**

Max.marks: 100

**BIOMEDICAL EQUIPMENTS**

(Answer section A & B separately, draw diagrams wherever necessary)

**SECTION-A**

**I. Write short notes on :**

**(10x5=50)**

- a. Describe with diagram parts of a typical endotracheal tube
- b. Advantages of ketamine over other intravenous induction agents
- c. ProSeal LMA
- d. Low-pressure systems in Boyle's anesthesia machine
- e. Circle system
- f. What are vaporizers? Characteristics of new vaporizers
- g. Hyperbaric oxygen
- h. 5 common complications after general anesthesia
- i. Defibrillator
- j. Safety features of Boyle's anaesthesia machine

**SECTION-B**

**II. Write short notes on :**

**(10x5=50)**

- a. Describe with diagram nasopharyngeal airway
- b. Ether
- c. Bain circuit
- d. Thorpe tube
- e. Mallapati classification
- f. Midazolam
- g. Describe Tuohy needle
- h. Electrocautery
- i. How will you sterilize OT after a biohazard case?
- j. Humidification equipment used in OT

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**DOTAT-S-III-MAY2023**

Time -3hrs.

**PAPER-III**

Max.marks: 100

**OPERATION THEATRE AND ANESTHESIA TECHNIQUES**

(Answer sections A & B separately, draw diagrams wherever necessary)

**SECTION-A**

**I Write short notes on :** **(10x5=50)**

- a. Universal precautions in OT
- b. Scavenging system in OT
- c. Transducers used for monitoring patients under anesthesia
- d. Different modes of ventilation. Define PEEP
- e. How to set a theatre for anaesthetizing newborn baby
- f. Oxygen hood
- g. How will you collect blood for ABG analysis
- h. How will you set for central venous catheterization
- i. Lithotomy position
- j. 5 common immediate postoperative complications of general anesthesia.

**SECTION B**

**II. Write short notes on:** **(10x5=50)**

- a. Venturi mask
- b. Sterilization of OT after biohazard case
- c. Describe briefly the working of the oxygen plant
- d. Basic monitors used in anesthesia
- e. Emergency intubation cart
- f. HFNO
- g. How will you set OT for an emergency LSCS
- h. Filling methods of vaporizers
- i. Laser resistant endotracheal tubes
- j. Tracheostomy tubes

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