

[LD 0212]

AUGUST 2013

Sub. Code: 1122

B.SC. OPERATION THEATRE AND ANAESTHESIA TECHNOLOGY

THIRD YEAR

PAPER II – PRINCIPLES OF ANESTHESIA-II

Q.P. Code: 801122

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

I. Elaborate on:

(3 x 10 = 30)

1. Discuss the aetiology and management of intraoperative hypotension.
2. Advanced cardiac life support and recent guidelines
3. Discuss the causes and management of post operative hypoxia.

II. Write notes on:

(8 x 5 = 40)

1. Safety devices in anesthesia machine
2. Problems of obesity
3. Bronchospasm during general anesthesia
4. Positioning under anesthesia
5. Anaphylaxis
6. CO₂ transport in the blood.
7. NYHA classification.
8. Cyanosis

III. Short Answers on:

(10 x 3 = 30)

1. Drugs that reduces intra cranial pressures
2. Bain's circuit
3. Premedication
4. Name three local anesthetics and its dosages.
5. Complications of general anesthesia
6. Induction agents
7. Resuscitation in polytrauma
8. CPAP Ventilation
9. Normal arterial blood gas values.
10. Massive blood transfusion

[LE 0212]

FEBRUARY 2014

Sub. Code: 1122

B.SC. OPERATION THEATRE AND ANAESTHESIA TECHNOLOGY

THIRD YEAR

PAPER II – PRINCIPLES OF ANESTHESIA - II

Q.P. Code: 801122

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

I. Elaborate on:

(3 x 10 = 30)

1. Precautions for patients with HIV. How will you sterilize the operation theatre?
2. Causes of hypoxia during general anesthesia and its management.
3. Describe transport of OXYGEN in the blood.

II. Write notes on:

(8 x 5 = 40)

1. Glasgow coma scale.
2. Inotropic agents
3. Pulse oximetry.
4. Soda lime
5. Intra operative anesthesia record.
6. Post operative shivering.
7. LMA
8. Post extubation stridor

III. Short Answers on:

(10 x 3 = 30)

1. Capnography
2. Aorto caval compression
3. Vaso dialators
4. Plasma components
5. Acute transfusion reactions.
6. Complications of spinal anesthesia
7. I C P
8. Tourniquet effects
9. Ayre's t – piece
10. Precautions during intra hospital transfer of patients.

[LF 0212]

AUGUST 2014

Sub. Code: 1122

**B.Sc. OPERATION THEATRE AND ANAESTHESIA TECHNOLOGY
THIRD YEAR
PAPER II – PRINCIPLES OF ANAESTHESIA - II**

Q.P. Code: 801122

Time : Three hours

Maximum : 100 marks

Answer All Questions.

I. Elaborate on:

(3 x 10 = 30)

1. Discuss in detail about non-invasive and invasive monitoring in the operation theatre.
2. Discuss in detail about cardio pulmonary resuscitation.
3. Discuss in detail pre-operative assessment, pre medication and theatre setting for a patient undergoing surgery under general Anaesthesia.

II. Write notes on:

(8 x 5 = 40)

1. Arrhythmias
2. NYHA classification
3. MALLAMPATTI grading of the Airway
4. Management of intra-operative hypotension.
5. Colour coding and pin index in medical gas supply.
6. Blood components
7. Combined Spinal Epidural Anaesthesia.
8. Laryngeal mask airway.

III. Short Answers on:

(10 x 3 = 30)

1. Intra operative and post operative pain management.
2. Inhalational induction in paediatric patient.
3. Rapid sequence induction
4. Mention the problems encountered in the recovery room.
5. Mention any 5 different nerve blocks.
6. Mention the advantages of Regional Anaesthesia.
7. Pulse oximetry
8. Management of post operative shivering.
9. Mention the advantages of Day Care Anaesthesia.
10. High risk consent.

**B.Sc. OPERATION THEATRE AND ANAESTHESIA TECHNOLOGY
THIRD YEAR
PAPER II – PRINCIPLES OF ANAESTHESIA - II**

Q.P. Code: 801122

Time : Three Hours

Maximum : 100 Marks

Answer All Questions.

I. Elaborate on:

(3 x 10 = 30)

1. Describe in detail the safety system in Anaesthesia Machine and Medical gas supply.
2. Classify inhalational Agents and mention the differences between Isoflurane and sevoflurane.
3. Classify Arrhythmias and discuss about their management.

II. Write notes on:

(8 x 5 = 40)

1. Reversal and extubation problems
2. Getting ready for a case.
3. Pulmonary function tests.
4. Precautions taken during management of MRSA (methicillin resistant staphylococcus aureus) patient in operation theatre.
5. Double lumen tubes.
6. Thiopentone versus propofol.
7. Define Hypoxia and write notes on Hypoxic hypoxia.
8. Central venous access.

III. Short Answers on:

(10 x 3 = 30)

1. Advantages of Epidural Anaesthesia.
2. Diazepam versus Midazolam.
3. Basic life support.
4. Soda lime indicators.
5. Emergency drugs.
6. Pediatric pre-medication.
7. Setting up of monitoring system.
8. Post extubation stridor.
9. 2 differences between Atropine and Glycopyrrolate.
10. Post dural puncture head ache (PDPH).

**B.Sc. OPERATION THEATRE AND ANAESTHESIA TECHNOLOGY
THIRD YEAR
PAPER II – PRINCIPLES OF ANAESTHESIA - II**

Q.P. Code: 801122

Time : Three Hours

Maximum : 100 Marks

Answer All Questions.

I. Elaborate on:

(3 x 10 = 30)

1. What is Day Care Anesthesia? How to set up a day care clinic? Mention advantages and its disadvantages. What is commonly done day care procedure?
2. What is shock? Mention different types of shock and its management.
3. How to prepare a operating room for emergency cesarean section in Ante – par tum hemorrhage?

II. Write notes on:

(8 x 5 = 40)

1. Pre medication for CABG.
2. Cardiopulmonary BYPASS.
3. Hypothermia.
4. Manual removal of placenta.
5. Reinforced Endotracheal tube.
6. Prone position.
7. Painless Labour.
8. Brain Dead.

III. Short Answers on:

(10 x 3 = 30)

1. Local Anesthesia.
2. Invasive Monitors.
3. Angina.
4. Intra cranial Pressure.
5. Neonatal Resuscitation.
6. Ectopic Pregnancy.
7. Diaphragmatic Hernia.
8. Bronchoscopy.
9. Awareness.
10. Head Ache.

**B.Sc. OPERATION THEATRE AND ANAESTHESIA TECHNOLOGY
THIRD YEAR**

PAPER II – PRINCIPLES OF ANAESTHESIA - II

Q.P. Code: 801122

Time : Three Hours

Maximum : 100 Marks

Answer All Questions.

I. Elaborate on:

(3 x 10 = 30)

1. How to prepare OT for emergency Craniotomy in 20 year old boy with Head injury and with Hypo tension?
2. What are all the common problems encountered in recovery room? How to recognize a Patient with inadequate breathing efforts? What is the management for impending Respiratory failure?
3. What are the physiological changes in Pregnancy? How to prepare OT for Elective LSCS?

II. Write notes on:

(8 x 5 = 40)

1. Percutaneous Tracheotomy.
2. Intercostal drainage.
3. Central venous pressure.
4. NOR ADRENALINE.
5. Postoperative cognitive dysfunction.
6. Post tonsillectomy bleeding.
7. Caudal Anaesthesia.
8. Weaning From Bypass.

III. Short Answers on:

(10 x 3 = 30)

1. Glycopyrolate.
2. Apgar Score.
3. Morphine.
4. DVT.
5. Systemic Hypertension.
6. Cryoprecipitate.
7. Nasogastric Tube.
8. Neostigmine.
9. Blood warmer.
10. Brain Dead.

**B.Sc. OPERATION THEATRE AND ANAESTHESIA TECHNOLOGY
THIRD YEAR
PAPER II – PRINCIPLES OF ANAESTHESIA - II**

Q.P. Code: 801122

Time : Three Hours

Maximum : 100 Marks

Answer All Questions.

I. Elaborate on:

(3 x 10 = 30)

1. Classification of breathing circuits. Maplesons classification. Brief about Bains circuit, Jackson Rees (Pediatric) Circuit.
2. Physiology of Respiration. Lung volumes and Capacities with Diagram.
3. Basic Minimum Mandatory Monitoring during Anesthesia. Explain in detail about capnography.

II. Write notes on:

(8 x 5 = 40)

1. Atracurium.
2. Total Spinal following sub Arachnoid Block and its Management.
3. Thiopentone.
4. Vapourisers.
5. Circle system.
6. Artificial Airways.
7. Pin Index. O₂, N₂O, Entonox, CO₂, Air-pin index configuration.
8. Premedication for paediatric Anesthesia.

III. Short Answers on:

(10 x 3 = 30)

1. Morphine.
2. Atropine.
3. Noradrenaline.
4. Ritchies Alarm.
5. E.M.L.A.
6. Sevoflurane.
7. Self inflating Resuscitator Bag.
8. Total Intravenous Anesthesia (TIVA).
9. 0.9% Normal Saline, 0.45% Normal Saline Composition and Indication.
10. Criteria for Adequate Reversal of Neuromuscular Blockade.

**B.Sc. OPERATION THEATRE AND ANAESTHESIA TECHNOLOGY
THIRD YEAR
PAPER II – PRINCIPLES OF ANAESTHESIA - II**

Q.P. Code: 801122

Time : Three Hours

Maximum : 100 Marks

Answer All Questions.

I. Elaborate on:

(3 x 10 = 30)

1. Laryngeal Mask Airway (LMA). Sizes and their specification.
2. Various positioning of Patients for surgery. Precautions to be taken during positioning.
3. What is Hypoxia? Types of Hypoxia. How to recognize and manage hypoxia post operatively?

II. Write notes on:

(8 x 5 = 40)

1. Rocuronium.
2. What is cross matching? Precautions to be taken before Blood Transfusion.
3. Propofol.
4. Cardiac cycle.
5. Soda lime canister.
6. Laryngoscope. Explain Laryngoscopy Technique.
7. Components of Anesthesia machine.
8. Tracheostomy.

III. Short Answers on:

(10 x 3 = 30)

1. Ondansetron.
2. Glycopyrolate.
3. Nitroglycerine (NTG).
4. Bourdons Pressure Gauge.
5. Cormack and Lehane classification of laryngoscopic views.
6. Desflurane.
7. Oxygen Cascade.
8. Entonox.
9. Mallampati Grading.
10. Care of Diathermy.

**B.Sc. OPERATION THEATRE AND ANAESTHESIA TECHNOLOGY
THIRD YEAR
PAPER II – PRINCIPLES OF ANAESTHESIA - II**

Q.P. Code: 801122

Time : Three Hours

Maximum : 100 Marks

Answer All Questions.

I. Elaborate on:

(3 x 10 = 30)

1. Discuss in detail the oxygen transport and oxygen therapy.
2. Discuss in detail the preoperative assessment, premedication and monitoring the patient in recovery room.
3. How would you prepare an operating room for emergency caesarean section in foetal distress?

II. Write notes on:

(8 x 5 = 40)

1. Soda lime indicators.
2. Invasive monitoring.
3. Post tonsillectomy bleed.
4. Cardiopulmonary bypass.
5. Epidural Anaesthesia.
6. Total intravenous anaesthesia (TIVA).
7. Intubating Laryngeal Mask Airway.
8. Recent Guidelines in advanced cardiac life support.

III. Short Answers on:

(10 x 3 = 30)

1. Atropine Vs Glycopyrrolate.
2. Day Care Anaesthesia.
3. Pin Index Safety system.
4. EMLA cream.
5. Horace wells.
6. Adrenaline.
7. Jackson Ree's circuit.
8. Plasma components.
9. Precautions to prevent fire in operating room.
10. Pulse oximetry.

**B.Sc. OPERATION THEATRE AND ANAESTHESIA TECHNOLOGY
THIRD YEAR
PAPER II – PRINCIPLES OF ANAESTHESIA - II**

Q.P. Code: 801122

Time : Three Hours

Maximum : 100 Marks

Answer All Questions.

I. Elaborate on:

(3 x 10 = 30)

1. Discuss in detail about Spinal and Epidural Anaesthesia. Enumerate the advantages of Epidural anaesthesia.
2. How will you prepare the operation theatre for elective adult cardiac surgery case to be performed on cardiopulmonary bypass?
3. Discuss in detail about cardiopulmonary resuscitation. Recent guidelines in basic and advanced cardiac life support.

II. Write notes on:

(8 x 5 = 40)

1. Premedication.
2. CO₂ transport in the blood.
3. Post operative pain management.
4. NYHA classification of dyspnoea.
5. Mallampati classification of airway.
6. Invasive monitoring.
7. Day care anaesthesia.
8. Capnography.

III. Short Answers on:

(10 x 3 = 30)

1. Colour coding in medical gas supply.
2. Post dural puncture headache.
3. Combined spinal and epidural anaesthesia.
4. Soda lime indicators.
5. Plasma components.
6. Morphine.
7. Apgar score.
8. Nasogastric tube.
9. Ankle Block.
10. Vasopressin.

**B.Sc. OPERATION THEATRE AND ANAESTHESIA TECHNOLOGY
THIRD YEAR
PAPER II – PRINCIPLES OF ANAESTHESIA - II**

Q.P. Code: 801122

Time : Three Hours

Maximum : 100 Marks

Answer All Questions.

I. Elaborate on:

(3 x 10 = 30)

1. What is shock? Mention different types of shock and management.
2. Define hypothermia. Explain various methods of warming a hypothermic patients.
3. Discuss in detail cardio pulmonary recustitation.

II. Write notes on:

(8 x 5 = 40)

1. Day care anaesthesia.
2. Rapid sequence intubation.
3. Capnography.
4. Components of anaesthesia machine.
5. Ethylene oxide gas sterilization.
6. Air embolism.
7. Intro operative fluid management.
8. Combined spinal and epidural anaesthesia.

III. Short Answers on:

(10 x 3 = 30)

1. Desflurane.
2. CVP – Central Venous Pressure.
3. Field block.
4. Draw Bains circuit and state three key points.
5. Management of post operative shivering.
6. Fluid warmer.
7. Phone position.
8. Biomedical waste colour coding.
9. Oral airway.
10. Mention any three blood components.

**B.Sc. OPERATION THEATRE AND ANAESTHESIA TECHNOLOGY
THIRD YEAR
PAPER II – PRINCIPLES OF ANAESTHESIA - II**

Q.P. Code: 801122

Time : Three Hours

Maximum : 100 Marks

Answer All Questions.

I. Elaborate on:

(3 x 10 = 30)

1. Advanced cardiac life support and Recent guide lines
2. Define hypoxia and its types discuss causes of hypoxia during general anaesthesia and its management.
3. Discuss in detail about non-invasive and invasive monitoring in the operation theatre.

II. Write notes on:

(8 x 5 = 40)

1. Total intravenous anaesthesia
2. Inotropic agents.
3. Laryngeal mask airway.
4. Anaphylaxis.
5. Double lumen tube.
6. Labour analgesia.
7. Uses of ultrasound in anaesthesia.
8. Bronchospasm during general anaesthesia,

III. Short Answers on:

(10 x 3 = 30)

1. Deep vein thrombosis
2. Name two inhalation induction agent for paediatric patients.
3. Composition of ringer lactate.
4. Non-adrenaline.
5. Entonox.
6. Post dural puncture headache.
7. Caudal anaesthesia.
8. Define premedication and give four examples.
9. What is post-operative shivering? What are the causes?
10. Types of sterilization.

[LP 0819]

AUGUST 2019

Sub. Code: 1122

**B.Sc. OPERATION THEATRE AND ANAESTHESIA TECHNOLOGY
THIRD YEAR
PAPER II – PRINCIPLES OF ANAESTHESIA - II**

Q.P. Code: 801122

Time : Three Hours

Maximum : 100 Marks

Answer All Questions.

I. Elaborate on:

(3 x 10 = 30)

1. Discuss in detail about the obstetric anesthesia and mention the difference in use of anesthesia between normal mother and pregnant mother.
2. Non invasive and invasive monitoring during cardiac anaesthesia.
3. Resuscitation of trauma patient.

II. Write notes on:

(8 x 5 = 40)

1. Ambu bag.
2. LMA.
3. Intercostal tube drainage (ICD) – indication and maintenance.
4. Types of Spinal needles.
5. Bupivacaine.
6. APGAR score.
7. Rapid sequence intubation.
8. Post operative nausea and vomiting management.

III. Short Answers on:

(10 x 3 = 30)

1. Epidural needle.
2. Lignocaine.
3. Reinforced ET tube.
4. Bronchospasm.
5. Central venous pressure (CVP).
6. What is day care Anaesthesia?
7. Angina.
8. IBP.
9. Air embolism.
10. Double lumen endotracheal tube.

**B.Sc. OPERATION THEATRE AND ANAESTHESIA TECHNOLOGY
THIRD YEAR
PAPER II – PRINCIPLES OF ANAESTHESIA - II**

Q.P. Code: 801122

Time : Three Hours

Maximum : 100 Marks

Answer All Questions.

I. Elaborate on:

(3 x 10 = 30)

1. How will you prepare the operation theatre for elective adult cardiac surgery case to be performed on cardiopulmonary bypass?
2. Explain in detail about Post operative nervous system dysfunction.
3. Pre anaesthesia daily machine checklist.

II. Write notes on:

(8 x 5 = 40)

1. Intracranial pressure.
2. Weaning.
3. Premedication for ECT.
4. Advantages of day care anesthesia center.
5. Pulmonary Function test.
6. Difference between Pharmacodynamics and Pharmacokinetics.
7. Echo Cardiography.
8. What are ocular complications after post anesthesia?

III. Short Answers on:

(10 x 3 = 30)

1. NYHA classification of dyspnoea.
2. Post operative pain management.
3. What is Angiography?
4. Preoperative investigation for shock?
5. Stages of anaesthesia.
6. What is Angina?
7. Management for postoperative headache.
8. Major types of anaesthesia.
9. What is Rapid sequence induction?
10. What is Air embolism?

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[LR 1220]

**DECEMBER 2020
(AUGUST 2020 EXAM SESSION)**

Sub. Code: 1122

**BACHELOR IN OPERATION THEATRE & ANAESTHESIA TECHNOLOGY
THIRD YEAR – (Regulations from 2010-2011, 2014-2015, & 2015-2016)
PAPER II – PRINCIPLES OF ANAESTHESIA - II
*Q.P. Code: 801122***

Time: Three Hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(3 x 10 = 30)

1. Describe in detail about Pre-operative and Post-operative management of patient who underwent Cardiac surgery.
2. Explain about Obstetric Anaesthesia.
3. Classify Anaesthesia and specify Nerve Blocks.

II. Write notes on:

(8 x 5 = 40)

1. Laryngoscope.
2. Glasgow Coma scale.
3. BLS.
4. Pain management of patient with Neuro surgery.
5. Anaesthesia for Adeno-tonsillectomy.
6. ICU management for Angiography patient.
7. Anaesthesia for the Bronchoscopy procedure.
8. ET tube Intubation.

III. Short Answers on:

(10 x 3 = 30)

1. Auditory complications during Anaesthesia.
2. Pre medications for Arrhythmias.
3. What are Invasive Monitors?
4. Indication of Regional Anaesthesia.
5. What is NYHA classification?
6. What is Intubation?
7. Day care Anaesthesia.
8. Advantages of Pre-medication.
9. Plasma components.
10. APGAR score.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[AHS 0122]

JANUARY 2022

Sub. Code: 1122

(FEBRUARY 2021 & AUGUST 2021 EXAM SESSION)

**B.Sc. OPERATION THEATRE & ANAESTHESIA TECHNOLOGY
THIRD YEAR – (Regulations from 2010-2011, 2014-2015 & 2015-2016)
PAPER II – PRINCIPLES OF ANAESTHESIA - II
*Q.P. Code: 801122***

Time: Three Hours Answer ALL Questions Maximum: 100 Marks

I. Elaborate on: (3 x 10 = 30)

1. Describe in detail the safety system in anaesthesia medicine and medical gas supply?
2. What is shock? Mention different types of shock and its management.
3. Define hypothermia. Explain various methods of warming a hypothermia patient?

II. Write notes on: (8 x 5 = 40)

1. Post operative shivering.
2. Mallampati grading of the airway.
3. Pulmonary function terms.
4. Etomidate.
5. Dexmedetomidine.
6. Post operative cognitive dysfunction.
7. Recent guideline in advanced cardiac life support.
8. Labour analysis.

III. Short Answers on: (10 x 3 = 30)

1. Four difference between Atropine and Glycopyrrolate.
2. Criteria for adequate reversal of neuromuscular blockade.
3. Ketamine.
4. Bourdon pressure gauge.
5. Oxygen cascade.
6. Entonox.
7. Diathermy.
8. Bio medical waste color coding.
9. Types of sterilization.
10. Ringer lactate.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[AHS 0922]

SEPTEMBER 2022

Sub. Code: 1122

(FEBRUARY 2022 & AUGUST 2022 EXAM SESSIONS)

**B.Sc. OPERATION THEATRE & ANAESTHESIA TECHNOLOGY
THIRD YEAR – (Regulations from 2010-2011, 2014-2015 & 2015-2016)
PAPER II – PRINCIPLES OF ANAESTHESIA - II
*Q.P. Code: 801122***

Time: Three Hours Answer ALL Questions Maximum: 100 Marks

I. Elaborate on: (3 x 10 = 30)

1. Preparation of Operation Theatre for emergency Lower Segment Caesarean Section (LSCS).
2. Classify arrhythmias and discuss about their management.
3. Various positioning of patient for surgery. Precaution to be taken during positioning.

II. Write notes on: (8 x 5 = 40)

1. NYHA Classification.
2. Bronchospasm during general anaesthesia.
3. Total Parenteral Nutrition.
4. Caudal Anaesthesia.
5. Colour coding and pin index in medical gas supply.
6. Cardiopulmonary Bypass.
7. Brachial Plexus Block.
8. Basic modes of ventilators.

III. Short Answers on: (10 x 3 = 30)

1. Rapid sequence induction.
2. Glasgow coma scale.
3. Methods to reduce Intracranial pressure during brain surgery.
4. Coronary Angiography.
5. APGAR score.
6. Methods to prevent hypothermia during surgery.
7. Protamine.
8. Routes of premedication in paediatric patients.
9. Drugs used in postoperative epidural analgesia.
10. Self inflating resuscitator bag.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[AHS 0424]

APRIL 2024

Sub. Code: 1122

B.Sc. OPERATION THEATRE & ANAESTHESIA TECHNOLOGY
THIRD YEAR – (Regulations 2010-2011, 2014-2015 & 2015-2016 onwards)

PAPER II – PRINCIPLES OF ANAESTHESIA - II

Q.P. Code: 801122

Time: Three Hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(3 x 10 = 30)

1. Define Epidural anaesthesia. How will you prepare the Epidural tray and describe the techniques of Epidural anaesthesia in detail.
2. How will you arrange emergency airway cart and equipments in operating room?
3. Anaesthesia for Electro Convulsive Therapy (ECT).

II. Write notes on:

(8 x 5 = 40)

1. BLS – Basic Life Support.
2. Resuscitation of New born.
3. Noninvasive blood pressure monitoring.
4. Day care anaesthesia.
5. Glasgow Coma Scale.
6. Preoperative preparation for Thoracic anaesthesia.
7. NIV – Non Invasive Ventilation.
8. Chest tube management.

III. Short Answers on:

(10 x 3 = 30)

1. List any three problems faced while extubating a child after paediatric anaesthesia.
2. Define Air embolism.
3. Differentiate Regional and General Anaesthesia.
4. Specify any three precautions to be taken when inducing anaesthesia for cardiac patient.
5. Define Vitalograph.
6. List any three vascular complications of post anaesthesia.
7. Define Rapid Sequence Induction.
8. Mention any three pharmacokinetic changes in the geriatrics related to anaesthesia.
9. Name the types of anaesthesia that can be given for mastoidectomy.
10. Define Mean arterial pressure.
