

Roll no.

P-2728

M.D. EXAMINATION, APRIL, 2008

M.D. – ANAESTHESIOLOGY

(Paper - I)

(Basic Sciences)

Time : 3 hours

Maximum Marks – 100

Note : Attempt all questions.

1. Describe the relationship between ventilation perfusion in normal and abnormal lung. 25 marks
 2. Describe assessment of airway in detail. Further describe how you would intubate a patient where you expect difficult intubation ? 25 marks
 3. Write short notes on : 10 marks each
 - (a) Anatomy of larynx
 - (b) Diffusion hypoxia
 - (c) Brain death
 - (d) Management of witnessed cardiac arrest
 - (e) Celiac plexus block
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Roll no.

P-2729

M.D. EXAMINATION, APRIL, 2008

M.D. – ANAESTHESIOLOGY

(Paper – II)

(Clinical Anaesthesia)

Time : 3 hours

Maximum Marks – 100

Note : Attempt all questions.

1. A middle aged male with uncontrolled diabetes mellitus and hypertension comes in emergency with small bowel obstruction. How would you proceed to evaluate the patient, prime problems he will pose and their management including anaesthetic, in brief ? 30 marks
2. Discuss the perioperative management of a 50 year old male with sick sinus syndrome having implanted permanent VVI pacemaker scheduled for exploratory laparotomy. 30 marks
3. Write in brief about : 10 marks each
 - (a) Venturi principle and its application in anaesthesia practice.
 - (b) TURP syndrome
 - (c) Current guidelines of neonatal CPR
 - (d) Anaesthesia for MRI

Roll no.

P-2730

M.D. EXAMINATION, APRIL, 2008

M.D. – ANAESTHESIOLOGY

(Paper – III)

(Applied and Recent advances)

Time : 3 hours

Maximum Marks – 100

Note : Attempt all questions.

1. Discuss anaesthetic management of a 55 year old female with diabetic nephropathy is posted for elective renal transplant. 25 marks
2. Write in details :
 - (a) What are the causes and management of hypoventilations immediately following anaesthesia ? 13 marks
 - (b) What do you understand by the "stress response" to surgery ? Outline briefly the effect of anaesthesia on this response. 12 marks
3. Describe in brief :
 - (a) Diagnosis and management of massive venous air embolism 10 marks
 - (b) Factors predisposing a patient to aspirate gastric contents into the lungs during G.A.. How can the risk be minimized ? 10 marks
4. Short notes on : 5 marks each
 - (a) Clonidine
 - (b) Liquid oxygen
 - (c) Xenon
 - (d) Hydroxyethyl starch and pentastarch
 - (e) Dexmedetomidine
 - (f) PCA

Roll No.

P-57

M. D. EXAMINATION, April/May 2009

ANAESTHESIOLOGY

Paper First

Time : Three Hours]

[Maximum Marks : 100

Note : Attempt all questions.

1. Discuss ventilation perfusion mismatch with its implications for the patient and the anesthesiologist.
2. Describe how a geriatric patient differs from a healthy adult ? Further describe anaesthetic management of Transurethral resection of prostate (TURP) in a 76 years patient with H/O myocardial infarction 1 year back.
3. Describe various stages of labour and labour analgesia in detail.
4. Write short notes on the following :
 - (a) Fundamental principles involved in assessing the difficult airway
 - (b) Mechanism of action of local anaesthetics
 - (c) Dopamine and dobutamine
 - (d) Oxygen dissociation curve
 - (e) Basic life support

M. D. EXAMINATION, April/May, 2009

ANAESTHESIOLOGY

Paper Second

(Clinical Anaesthesia)

Time : Three Hours]

[Maximum Marks : 100

Note : Answer all questions.

1. Discuss the Perianaesthetic management of a neonate posted for repair of tracheo-oesophageal fistula. 25
2. Describe anaesthetic technique for the following :
 - (a) Obstetric patient for Non-obstetric surgery 8
 - (b) Awake Blind Nasotracheal Intubation 8
 - (c) Total Intravenous anaesthesia 9
3. Comment on the following :
 - (a) Post-operative pain management following upper abdominal surgery 8
 - (b) Anaesthetic considerations for laser surgery 9
 - (c) Capnography 8
4. Write short notes on the following :
 - (a) Remifentanyl 8
 - (b) Newer ionotropic agents 8
 - (c) Inhalational anaesthetic gas monitoring 9

Roll No.

P-59

M. D. EXAMINATION, April/May, 2009

ANAESTHESIOLOGY

Paper Third

(Applied Anaesthesia/Pain/ICU Care)

Time : Three Hours]

[Maximum Marks : 100

Note : Attempt all questions.

1. A 32 years old female weighing 150 kg and 150 cm tall is scheduled for cholecystectomy and Bile duct exploration. Discuss the pre-operative and anaesthetic management of this patient. 25
2. A 50 years old chronic smoker underwent right thoracotomy with lobectomy for Ca lung. Discuss the clinical importance of post-op. pain management and enumerate the modalities of post-op. pain management of this case. 20
3. Write briefly on the following : 10 each
 - (i) Different techniques and devices for effective cardiac compressions during CPR.
 - (ii) Anaesthetic considerations for patient undergoing interventional neuroradiology procedure.
 - (iii) Management of 5 years old child with bleeding to nail.

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4. Write short notes on any five of the following : 5 each
- (i) Mg^{+} and its role in anaesthetic practice
 - (ii) Criteria for spontaneous breathing trials
 - (iii) Discuss the WHO step-ladder for treatment of chronic cancer pain
 - (iv) Role of activated protein C in sepsis
 - (v) Clinical applications of intra-operative use of TEE
 - (vi) Factors associated with post-op visual loss and method to prevent it

Roll No.

P-60

M. D. EXAMINATION, April/May, 2009

ANAESTHESIOLOGY

Paper Fourth

(Recent Advances)

Time : Three Hours]

[Maximum Marks : 100

Note : Attempt all questions.

1. Discuss anaesthetic management of 78 years male posted for Total hip replacement having lumbar spine injuries. 25
2. What are latest recommendations of paediatrics resuscitation ? 25
3. Describe briefly the following : 10 each
 - (a) Prone Ventilation
 - (b) Ventilator Associated Pneumonia (VAP)
4. Write short notes on the following : 10 each
 - (a) Levosimendan
 - (b) Clonidine in Anaesthetics Practice
 - (c) Desflurane

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POST GRADUATE DEGREE EXAMINATION, APRIL- 2011

**MD ANAESTHESIOLOGY
(PAPER ONE)**

BASIC SCIENCES

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions

- Q. 1. LMA, its different designs and their clinical utility. (20)
- Q. 2. PACU design, discharge criteria and common problems faced post- operatively. (20)
- Q. 3. Describe briefly: (3 x 10 = 30)
- a. Flow meters, arrangement and evolution over the years. (20)
 - b. BP monitoring principles and types (outline only). (5 x 10 = 30)
 - c. PAC goals and risk stratification in general.
- Q. 4. Write short notes on: (5 x 6 = 30)
- a. Depolarizing NM block
 - b. Anatomy of epidural space
 - c. ANOCI - Association
 - d. Oxygen cascade and Pasteur point
 - e. Sterilization of PVC goods used in anaesthesia.

X

POST GRADUATE DEGREE EXAMINATION, APRIL- 2011

**MD ANAESTHESIOLOGY
(PAPER TWO)**

CLINICAL ANAESTHESIA

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions

- Q. 1. Discuss the anaesthetic management of a hypertensive, 50 years old female patient scheduled for cholecystectomy. (20)
- Q. 2. What are the anaesthesia related problems in a 3 days old baby with the diagnosis of congenital diaphragmatic hernia? (20)
- Q. 3. Describe briefly: (3 x 10 = 30)
- a. Anaesthetic implications of obesity
 - b. Patient controlled analgesia
 - c. Difficult airway assessment
- Q. 4. Write short notes on: (5 x 6 = 30)
- a. Positioning in anaesthesia
 - b. Supine hypotensive syndrome
 - c. Management of intraoperative bronchospasm
 - d. Rationale for premedication
 - e. TURP syndrome

POST GRADUATE DEGREE EXAMINATION, APRIL- 2011**MD ANAESTHESIOLOGY
(PAPER THREE)****APPLIED ANAESTHESIA IN RELATION TO CASE MANGEMENT**

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions

- Q. 1. Discuss the anaesthetic management of a 55 yrs old male for bilateral total knee replacement. (20)
- Q. 2. Discuss the current concepts of acute pain management. (20)
- Q. 3. Describe briefly: (3 x 10 = 30)
- a. Ventilatory strategies for ARDS. (3 x 10 = 30)
 - b. Anaesthetic problems encountered in pregnant female for appendicectomy.
 - c. Pre-operative evaluation and preparation of patient who is a chronic smoker for abdominal surgery.
- Q. 4. Write short notes on: (5 x 6 = 30)
- a. Desflurane V/s Sevoflurane
 - b. Pro-Seal LMA
 - c. Dobutamine V/s Dopamine
 - d. Levo-bupivacaine
 - e. Fasting guidelines in children

X

POST GRADUATE DEGREE EXAMINATION, APRIL- 2011**MD ANAESTHESIOLOGY
(PAPER FOUR)****RECENT ADVANCES**

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions

- Q. 1. Discuss the management of a 15 years old boy with history of Duchenne muscular dystrophy posted for appendicectomy. (20)
- Q. 2. Discuss the management of 18 years old female with organophosphours compound poisoning. (20)
- Q. 3. Describe briefly: (3 x 10 = 30)
- Tec 6 Vaporizor with a note on its working at high altitudes.
 - New guidelines for use of defibrillator.
 - Cardiopulmonary exercise tolerance & its role in preoperative evaluation.
- Q. 4. Write short notes on: (5 x 6 = 30)
- Hazards of scavanging system
 - Ropivacaine
 - Newer supra glottic devices
 - Treatments of hyperkalemia
 - I.V. paracetamol

POST GRADUATE EXAMINATION, APRIL- 2012

**MD ANAESTHESIOLOGY
(PAPER ONE)**

BASIC SCIENCES

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagnosis.

- Q. 1.** Describe anatomy of the tracheobronchial tree. Also discuss its clinical implications. (20)
- Q. 2.** Describe physiology of neuromuscular junction. Discuss factors affecting neuromuscular block. (20)
- Q. 3.** Describe briefly: (3 x 10 = 30)
- a. Pressure regulator (Oxygen) used in anaesthesia machines.
 - b. Jackson- Rees breathing system.
 - c. Safety features in anaesthesia machine
- Q. 4.** Write short notes on: (5 x 6 = 30)
- a. Objectives of preanaesthesia checkup
 - b. Plasma sterilization technique
 - c. Basic precautions for control of infection
 - d. Inline E_TCO_2 monitoring
 - e. Resuscitation trolley in recovery room

POST GRADUATE EXAMINATION, APRIL- 2012

MD ANAESTHESIOLOGY

(PAPER TWO)

CLINICAL ANAESTHESIA

[Max Marks: 100]

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagnosis.

- Q. 1.** Discuss the evaluation and preoperative preparation of patient with coronary artery disease for non cardiac surgery. (20)
- Q. 2.** Discuss the complications of regional anaesthesia. (20)
- Q. 3.** Describe briefly: (3 x 10 = 30)
- a. Predictors of respiratory complications in post operative period.
 - b. Discharge criteria after day care surgery
 - c. Effect of diabetes on the outcome of anaesthesia and surgery.
- Q. 4.** Write short notes on: (5 x 6 = 30)
- a. Pregabalin
 - b. Post operative nausea and vomiting
 - c. Phantom limb
 - d. Atrial fibrillation
 - e. Thyroid storm

POST GRADUATE EXAMINATION, APRIL- 2012

**MD ANAESTHESIOLOGY
(PAPER THREE)**

APPLIED ANAESTHESIA IN RECAUTION TO CASE MANGEMENT

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagnosis.

- Q. 1.** Discuss anaesthetic management of a 65 years old female, who under went coronary angioplasty 2 years back, posted for total hip replacement surgery. (20)
- Q. 2.** Discuss anaesthetic management of a 5 year child posted for foreign body removal having difficulty in breathing. (20)
- Q. 3.** Describe briefly: (3 x 10 = 30)
- a. Patient controlled analgesia.
 - b. Diagnosis & management of TURP syndrome
 - c. Management of Hyperkalemia
- Q. 4.** Write short notes on: (5 x 6 = 30)
- a. Magnesium sulphate
 - b. Allevis test
 - c. PEEP
 - d. Rocuronium
 - e. Diagnosis of malignant hyperpyrexia

POST GRADUATE EXAMINATION, APRIL- 2012

MD ANAESTHESIOLOGY

(PAPER FOUR)

RECENT ADVANCES

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagnosis.

- Q. 1.** Discuss various supraglottic devices indicating their advantages, disadvantages, complications and types available. (20)
- Q. 2.** Discuss newer techniques used for peripheral nerve blocks. Write a note on newer drugs used in peripheral nerve blocks. (20)
- Q. 3.** Describe briefly: (3 x 10 = 30)
- a. Prevention of VAP
 - b. New BLS adult guidelines
 - c. Guidelines to prevent catheter related infections.
- Q. 4.** Write short notes on: (5 x 6 = 30)
- a. Cardioversion v/s Defibrillation
 - b. Measures to reduce raised intracranial pressure.
 - c. Pre-medication in children
 - d. Newer intubating aids
 - e. Role of opioids in epidural analgesia

POST GRADUATE EXAMINATION, MAY- 2013

**MD ANAESTHESIOLOGY
(PAPER ONE)**

BASIC SCIENCES

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions

Illustrate with suitable diagrams.

- Q. 1.** Describe in detail anatomy of neuro-muscular junction. Describe various techniques to monitor function of neuromuscular junction. (20)
- Q. 2.** What is cardiac output? Describe various factors affecting cardiac output. What are the implications for anaesthesia in a patient having a fixed low cardiac output? (20)
- Q. 3.** Describe briefly: (3 x 10 = 30)
- Physiology of IPPV
 - Liver function tests for a case having obstructive jaundice
 - Sterilization techniques for endotracheal equipment.
- Q. 4.** Write short notes on: (5 x 6 = 30)
- Role of ultrasound in peripheral nerve blocks.
 - Management of a HIV positive parturient presenting for elective caesarean section.
 - Reynold's number
 - WTG Morton
 - Nutritional aspect of a patient admitted in ICU for long term ventilation.

POST GRADUATE EXAMINATION, MAY- 2013

**MD ANAESTHESIOLOGY
(PAPER TWO)**

CLINICAL ANAESTHESIA

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

- Q. 1.** Discuss the resuscitation and anaesthetic management of aseptic intestinal perforation patient. (20)
- Q. 2.** Anaesthetic management of a case of 24 weeks pregnant lady undergoing cholecystectomy. (20)
- Q. 3.** Describe briefly: (3 x 10 = 30)
- a. Bohr's effect
 - b. Oxygen toxicity
 - c. Jugular bulb oximetry
- Q. 4.** Write short notes on: (5 x 6 = 30)
- a. Flail chest
 - b. End tidal CO₂ monitoring
 - c. Base excess
 - d. Vasopressin
 - e. Apache -2

POST GRADUATE EXAMINATION, MAY- 2013

**MD ANAESTHESIOLOGY
(PAPER THREE)**

APPLIED ANAESTHESIA IN RECAUTION TO CASE MANGEMENT

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

- Q. 1.** Discuss anaesthetic management of a 70 years old known asthmatic patient with COPD posted for elective inguinal hernia repair. (20)
- Q. 2.** Discuss pre, peri and post anaesthetic management of a 10 kg child posted for elective cleft lip and palate repair. (20)
- Q. 3.** Describe briefly: (3 x 10 = 30)
- a. Walking epidural
 - b. DVT prophylaxis in critically ill patient
 - c. Management of Hyponatremia
- Q. 4.** Write short notes on: (5 x 6 = 30)
- a. IL - 6
 - b. Levo bupivacaine
 - c. High frequency ^{radio -} ~~ratio~~ ablation
 - d. Pro-Seal LMA
 - e. FFP

POST GRADUATE EXAMINATION, MAY- 2013

**MD ANAESTHESIOLOGY
(PAPER FOUR)**

RECENT ADVANCES

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

- Q. 1.** Discuss the anaesthetic management of an 18 years old with temporo mandibular joint ankylosis posted for condylectomy. (20)
- Q. 2.** Give and outline of the recent BLS guidelines in all age groups. Differentiate and compare it with previous guidelines. Write a note on use of Et CO₂ monitoring during CPR. (20)
- Q. 3.** Describe briefly: (3 x 10 = 30)
- a. Diagnosis, differential diagnosis and treatment of malignant hyperthermia.
 - b. Massive blood transfusion
 - c. Multinodal analgesia
- Q. 4.** Write short notes on: (5 x 6 = 30)
- a. BASKA mask
 - b. Volumetric capnography
 - c. NAVA
 - d. Monophasic v/s Biphasic defibrillation
 - e. DISS

POST GRADUATE EXAMINATION, SEPTEMBER- 2013

**MD ANAESTHESIOLOGY
(PAPER ONE)**

BASIC SCIENCES

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions

Illustrate with suitable diagrams if required.

Q. 1. Describe the anatomy of brachial plexus and various techniques in detail to block the plexus. (20)

Q. 2. Discuss oxygen transport in detail along with its anaesthetic implications. (20)

Q. 3. Describe briefly: (3 x 10 = 30)

- a. Venturi principle and its applications in anaesthesia practice.
- b. Contribution of John Snow in practice of anaesthesia.
- c. Various types of laryngeal mask airways.

Q. 4. Write short notes on: (5 x 6 = 30)

- a. Cerebral oximetry
- b. Positive end expiratory pressure (PEEP).
- c. Safety checks in anaesthesia machine.
- d. Management of, hepatitis C positive, parturient for elective caesarean section.
- e. Preanaesthetic assessment of a patient with Addison's disease.

POST GRADUATE EXAMINATION, SEPTEMBER- 2013

**MD ANAESTHESIOLOGY
(PAPER TWO)**

CLINICAL ANAESTHESIA

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions

Illustrate with suitable diagrams if required..

- Q. 1.** Discuss the anaesthetic management of a case of 75 years old man with fracture neck of femur, hypertension and atrial fibrillation, and on anticoagulants, for internal fixation. (20)
- Q. 2.** Discuss anaesthetic management of tracheal stenosis. (20)
- Q. 3.** Describe briefly: (3 x 10 = 30)
- Diabetic ketoacidosis
 - Oxygen dissociation curve
 - Blood transfusion reactions
- Q. 4.** Write short notes on: (5 x 6 = 30)
- Laevosimendon
 - Chloride shift
 - Double Bohr's effect
 - BNP
 - Pregablin

POST GRADUATE EXAMINATION, SEPTEMBER- 2013

MD ANAESTHESIOLOGY

(PAPER THREE)

APPLIED ANAESTHESIA IN RELATION TO CASE MANGEMENT

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions

Illustrate with suitable diagrams if required.

Q. 1. Describe anaesthetic management for laparoscopic cholecystectomy in a hypertensive patient. (20)

Q. 2. A 22 year old primigravida is posted for emergency caesarian section with foetal distress. Discuss anaesthetic management. (20)

Q. 3. Describe briefly: (3 x 10 = 30)

- a. Treatment of hyperkalemia
- b. Autologous blood transfusion
- c. Bier's block for forearm surgery

Q. 4. Write short notes on: (5 x 6 = 30)

- a. Soda lime
- b. McCoy Laryngoscope
- c. Cloridine
- d. B/S monitor
- e. Ketamine

POST GRADUATE EXAMINATION, SEPTEMBER- 2013

MD ANAESTHESIOLOGY
(PAPER FOUR)

RECENT ADVANCES

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions

Illustrate with suitable diagrams if required.

- Q. 1.** Discuss the anaesthetic management of 85 years old male posted for THR. He is a hypertensive on β -blocker and aspirin 75 mg o.d. (20)
- Q. 2.** Mention the supraglottic devices. Discuss the LMA family. (20)
- Q. 3.** Describe briefly: (3 x 10 = 30)
- Ventilation strategies in ARDS.
 - Use of ultra sound in anaesthetic practice
 - Sedation in ICU
- Q. 4.** Write short notes on: (5 x 6 = 30)
- Biphasic defibrillation
 - BLS algorithm
 - Sevoflurane
 - WHO ladder for chronic pain
 - Different routes of fentanyl administration

POST GRADUATE EXAMINATION, APRIL/ MAY- 2014

MD ANAESTHESIOLOGY

(PAPER ONE)

BASIC SCIENCES

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

- Q. 1.** Describe the anatomy of epidural space and its implication of different approaches of epidural block at different vertebral levels. (20)
- Q. 2.** Discuss the structure and physiology of neuromuscular junction and basis of neuromuscular blockers. (20)
- Q. 3.** Describe briefly: (3 x 10 = 30)
- a. Reynold's number.
 - b. Contribution of Ivan W. Magill in practice of anaesthesia.
 - c. Various types of endotracheal tubes.
- Q. 4.** Write short notes on: (5 x 6 = 30)
- a. Methods of cardiac output monitoring.
 - b. Second gas effect.
 - c. Flowmeters in anaesthesia machine.
 - d. Methods of prevention of VAP in ICU.
 - e. Pre anaesthetic assessment of a patient with cardiac disease for non cardiac surgery.

POST GRADUATE EXAMINATION, APRIL/ MAY- 2014

**MD ANAESTHESIOLOGY
(PAPER TWO)**

CLINICAL ANAESTHESIA

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

- Q. 1.** Describe the anaesthetic management of a 60 years old male in diabetic ketoacidosis who is to undergo an emergency laparotomy for acute intestinal obstruction. (20)
- Q. 2.** Discuss the management of a mother complaining of a headache following spinal anaesthesia for an emergency cesarean delivery 2 days back. (20)
- Q. 3.** Describe briefly: (3 x 10 = 30)
- a. Anaesthetic considerations in a patient with a permanent pacemaker.
 - b. Fat embolism syndrome.
 - c. Problems and management of anaesthesia in a 4 year old child with penetrating eye injury.
- Q. 4.** Write short notes on: (5 x 6 = 30)
- a. Para vertebral block.
 - b. Post cardiac arrest care.
 - c. Magnesium sulphate.
 - d. Carbon monoxide poisoning in burns.
 - e. Methods of pre-operative airway assessment in an adult.

POST GRADUATE EXAMINATION, APRIL/ MAY- 2014

**MD ANAESTHESIOLOGY
(PAPER THREE)**

APPLIED ANAESTHESIA IN RECAUTION TO CASE MANGEMENT

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

- Q. 1.** Discuss the causes, diagnosis and management of cardiac dysrhythmia during perioperative period. (20)
- Q. 2.** Discuss the role of an anaesthesiologist in the management of a patient with 60% acute burn. (20)
- Q. 3.** Describe briefly: (3 x 10 = 30)
- Explain positional hazards under anaesthesia.
 - Clinical uses of α_2 agonist in anaesthesia.
 - Factors affecting the placental transfer of drugs.
- Q. 4.** Write short notes on: (5 x 6 = 30)
- HELLP syndrome.
 - Postoperative shivering.
 - Diagnosis of malignant hyperpyrexia
 - Anion gap.
 - Delayed recovery in anaesthesia.

POST GRADUATE EXAMINATION, APRIL/ MAY- 2014

**MD ANAESTHESIOLOGY
(PAPER FOUR)**

RECENT ADVANCES

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

- Q. 1.** Briefly discuss the management of a patient with severe sepsis as per “Surviving sepsis guidelines”. (20)
- Q. 2.** What are the criteria for brain death? Describe the management of brain dead patient for organ donation. (20)
- Q. 3.** Describe briefly: (3 x 10 = 30)
- Discuss anaesthetic problems in robotic surgery.
 - What is the significance of autonomic neuropathy in diabetes mellitus? How can it be assessed?
 - Physiology of circulation during closed chest compressions. Discuss the algorithm of adult basic life support.
- Q. 4.** Write short notes on: (5 x 6 = 30)
- Automated external defibrillator.
 - Discharge criteria for a patient after day care surgery.
 - Jugular venous oximetry.
 - Role of Dexmedetomidine – in ICU and OT.
 - Health Hazards for anaesthesiologists.

POST GRADUATE EXAMINATION, APRIL - 2015

**MD ANAESTHESIOLOGY
(PAPER ONE)**

BASIC SCIENCES

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

- Q. 1.** Describe applied anatomy of internal jugular vein. Discuss advantages, disadvantages and complications of IJV cannulation. (20)
- Q. 2.** Describe the role of cardiopulmonary exercise testing in pre-operative assessment of patients. (20)
- Q. 3.** Describe briefly: (3 x 10 = 30)
- a. Hypoxic guard in anaesthesia machines.
 - b. Thermister
 - c. Thyroid function tests.
- Q. 4.** Write short notes on: (5 x 6 = 30)
- a. Sugammadex
 - b. Airway assessment
 - c. Induced hypotension
 - d. Factors affecting spinal anaesthesia
 - e. Pressure volume loops

POST GRADUATE EXAMINATION, APRIL - 2015

**MD ANAESTHESIOLOGY
(PAPER TWO)**

CLINICAL ANAESTHESIA

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

- Q. 1.** Discuss the preoperative assessment, goals of intraoperative management of a 34 year old male with severe kyphoscoliosis for correction surgery. (20)
- Q. 2.** Discuss the assessment and management of traumatized airway in a 30 year old male, road traffic accident victim. (20)
- Q. 3. Describe briefly:** (3 x 10 = 30)
- a. Anaesthesia for ECT.
 - b. "Analysis of variance" (ANOVA) test.
 - c. Inverse ratio ventilation.
- Q. 4. Write short notes on:** (5 x 6 = 30)
- a. Rapid sequence induction – current concepts.
 - b. Bone cement implantation syndrome.
 - c. Management of desaturation in patients with one lung ventilation.
 - d. ACLS
 - e. Post operative nausea and vomiting

POST GRADUATE EXAMINATION, APRIL - 2015

**MD ANAESTHESIOLOGY
(PAPER THREE)**

APPLIED ANAESTHESIA IN RELATION TO CASE MANAGEMENT

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

- Q. 1.** A 70 year old anemic man with history of old IHD on anticoagulant therapy and hypertensive, diabetic is posted for THR. Describe anaesthetic management. (20)
- Q. 2.** Describe an algorithm for failed intubation in obstetric patient. Discuss anaesthetic considerations for emergency cesarean section with acute foetal distress. (20)
- Q. 3. Describe briefly:** (3 x 10 = 30)
- Biochemical changes in stored blood after 21 days and effects of transfusing such blood.
 - Anaesthetic management of neonate with large USD for trachea-oesophageal fistula repair.
 - Preoperative evaluation for autonomic neuropathy in a diabetic patient and its anaesthetic implications.
- Q. 4. Write short notes on:** (5 x 6 = 30)
- Anaesthesia crises and resource management.
 - Neuromodulation
 - Resuscitation and anaesthetic management of splenic rupture in head injury patient.
 - Various techniques of celiac plexus block and the pitfalls of each technique.
 - Limitation of pulse oximetry in clinical practice.

POST GRADUATE EXAMINATION, APRIL - 2015

**MD ANAESTHESIOLOGY
(PAPER FOUR)**

RECENT ADVANCES

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

- Q. 1.** Briefly discuss the management of a patient weighing 120 kg. and height 170 cm. posted for laparoscopic bariatric surgery. (20)
- Q. 2.** Discuss the role of thromboelastography in clinical practice of anaesthesia and trauma management. (20)
- Q. 3. Describe briefly:** (3 x 10 = 30)
- a. ASA guidelines for MRI.
 - b. Ecofriendly anaesthesia.
 - c. Newer pharmacological interventions in ARDS.
- Q. 4. Write short notes on:** (5 x 6 = 30)
- a. GANTACURIUM
 - b. Tabulate the changes in BLS and ACLS in view of ASA guidelines 2005 and 2010.
 - c. Role of adenosine in neuroanaesthesia.
 - d. Recent advances in pulse oximetry.
 - e. Ultrasonography in clinical anaesthesia.

POST GRADUATE EXAMINATION, MAY - 2016

**MD ANAESTHESIOLOGY
(PAPER ONE)**

BASIC SCIENCES

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

Q. 1. Describe with diagrammatic representation of the various lung volumes and capacities. Describe the spirometric features of patients with obstructive and restrictive pulmonary disorders. **(20)**

Q. 2. Describe the anatomy of pain pathway. Discuss the pathophysiology of chronic pain. **(20)**

Q. 3. Describe briefly: **(3 x 10 = 30)**
a. Cardiac cycle
b. Safety features provided in anaesthesia machines to prevent hypoxia.
c. Different types of LMA and their indications, advantages and disadvantages.

Q. 4. Write short notes on: **(5 x 6 = 30)**
a. Ventilation perfusion ratio
b. Work of breathing
c. Hepatic blood flow and anaesthesiologist
d. Nerve supply of the larynx
e. Thrombin time

X

POST GRADUATE EXAMINATION, MAY - 2016

**MD ANAESTHESIOLOGY
(PAPER TWO)**

CLINICAL ANAESTHESIA

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

Q. 1. Discuss the preoperative evaluation of 80 year old male patient posted for TURP with history of MI 1 year back. (20)

Q. 2. Discuss anesthetic management and problems faced in a 25 year old female posted for cerebral aneurysm clipping. (20)

Q. 3. Describe briefly: (3 x 10 = 30)

- a. Management of hemorrhagic shock
- b. Multimodal analgesia for acute pain
- c. Anesthetic management of 6 month old child posted for inguinal hernia.

Q. 4. Write short notes on: (5 x 6 = 30)

- a. Post-operative hypoxia
- b. Gastric acid prophylaxis
- c. Magnesium toxicity
- d. Indications for hemodialysis
- e. Thyroid storm

X

POST GRADUATE EXAMINATION, MAY - 2016

**MD ANAESTHESIOLOGY
(PAPER THREE)**

APPLIED ANAESTHESIA IN RELATION TO CASE MANAGEMENT

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

- Q. 1.** Discuss anaesthetic management of a bronchial asthma patient posted for laparoscopic cholecystectomy. (20)
- Q. 2.** Discuss anaesthetic management of a child posted for VP shunt surgery. (20)
- Q. 3.** Describe briefly: (3 x 10 = 30)
- Problems in post fossa craniotomy
 - DVT prophylaxis and drug doses.
 - Intra operative cell salvage
- Q. 4.** Write short notes on: (5 x 6 = 30)
- Lung surfactant
 - Perfluorocarbons
 - Flumazenil
 - Management of PDPH
 - IVRA

X

POST GRADUATE EXAMINATION, MAY - 2016

MD ANAESTHESIOLOGY

(PAPER FOUR)

RECENT ADVANCES

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

Q. 1. Discuss anaesthesia for laser surgery. (20)

Q. 2. Discuss the role of video-laryngoscopes in today's anaesthesia scenario. (20)

Q. 3. Describe briefly: (3 x 10 = 30)

- a. Nosocomial infections
- b. Prone ventilation
- c. Combi - tube

Q. 4. Write short notes on: (5 x 6 = 30)

- a. Use of statistics in anaesthesia
- b. Xenon
- c. Acute pain services
- d. Modified ECT
- e. Basic life support (algorithm only) 2015

X

POST GRADUATE EXAMINATION, SEPT./OCT. - 2016

MD ANAESTHESIOLOGY

(PAPER ONE)

BASIC SCIENCES

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

- Q. 1.** Describe anatomy of neuromuscular junction. Discuss physiology of neuromuscular transmission.
What are types of neuromuscular blockade? How will you monitor neuromuscular transmission? (20)
- Q. 2.** Enumerate factors influencing uptake and distribution of inhalational agent. (20)
- Q. 3. Describe briefly:** (3 x 10 = 30)
- a. End tidal CO₂ monitoring
 - b. Flow meter assembly
 - c. Depth of anesthesia
- Q. 4. Write short notes on:** (5 x 6 = 30)
- a. Hypokalemia
 - b. p50
 - c. Nerve supply of larynx
 - d. Desflurane
 - e. LMA unique

X

POST GRADUATE EXAMINATION, SEPT./OCT. - 2016

**MD ANAESTHESIOLOGY
(PAPER TWO)**

CLINICAL ANAESTHESIA

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

- Q. 1.** Define i) Capnogram ii) Capnometry iii) Capnograph. Draw and explain the normal ETCO₂ tracing. Draw five abnormal ETCO₂ tracings and add a brief note on each. (20)
- Q. 2.** Mention the advantage of regional anaesthesia for caesarean section. What are the causes for reduced local anaesthetic requirement in pregnancy? Write briefly on aortocaval compression during pregnancy. (20)
- Q. 3. Describe briefly:** (3 x 10 = 30)
- a. Occulocardiac reflex
 - b. Continuous renal replacement therapy
 - c. Double-Bohr effect
- Q. 4. Write short notes on:** (5 x 6 = 30)
- a. Sellick's manoeuvre
 - b. Fluid management in a 4 year old child weighing 21kg. for inguinal hernia surgery
 - c. Smoking and anaesthesia
 - d. Liposuction anaesthetic implications
 - e. Crystalloid versus colloid

X

POST GRADUATE EXAMINATION, SEPT./OCT. - 2016

**MD ANAESTHESIOLOGY
(PAPER THREE)**

APPLIED ANAESTHESIA IN RELATION TO CASE MANAGEMENT

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

- Q. 1.** What is cardioversion? Discuss the indications, electrical energy requirement and anaesthesia for cardioversion. (20)
- Q. 2.** Discuss the pathophysiology, perioperative diagnosis and management of pulmonary air embolism. (20)
- Q. 3. Describe briefly:** (3 x 10 = 30)
- a. Hyperkalemia
 - b. Various techniques of celiac plexus block and the pitfalls of each technique.
 - c. Haemorrhagic shock
- Q. 4. Write short notes on:** (5 x 6 = 30)
- a. Oxygen dissociation curve
 - b. APRV
 - c. Ankle block
 - d. Etomidate
 - e. MAC (Monitored Anaesthesia Care)

POST GRADUATE EXAMINATION, SEPT./OCT. - 2016

MD ANAESTHESIOLOGY

(PAPER FOUR)

RECENT ADVANCES

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams.

Q. 1. Components of surviving sepsis guidelines. (20)

Q. 2. Role of ultrasound in anaesthesia and intensive care management. (20)

Q. 3. Describe briefly: (3 x 10 = 30)

- a. Patient controlled analgesia
- b. Levobupivacaine versus ropivacaine
- c. TAP block

Q. 4. Write short notes on: (5 x 6 = 30)

- a. FAST (Focused Assessment of Sonography in Trauma)
- b. Changes in CPR (BLS & ACLS) in 2015
- c. Video laryngoscopes
- d. Second Generation supraglottic devices
- e. Hypothermia causes in perioperative period

X

POST GRADUATE EXAMINATION, MAY - 2017

**MD ANAESTHESIOLOGY
(PAPER ONE)**

BASIC SCIENCES

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams wherever required

- Q. 1.** Discuss the pulmonary function tests and its implication to the anaesthesiologist. Enumerate the benefits of cessation of smoking. (20)
- Q. 2.** Classify vaporisers. Discuss the mechanisms and effects of pumping effect. (20)
- Q. 3. Describe briefly:** (3 x 10 = 30)
- a. Functional analysis of Mapleson A circuit
 - b. Predictors of difficult intubation
 - c. Anatomical differences between adult and paediatric airway
- Q. 4. Write short notes on:** (5 x 6 = 30)
- a. Walking epidural
 - b. Pulse oximeter
 - c. Desflurane
 - d. Factors affecting ICP
 - e. Remifentanyl

X

POST GRADUATE EXAMINATION, MAY - 2017

**MD ANAESTHESIOLOGY
(PAPER TWO)**

CLINICAL ANAESTHESIA

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams wherever required

- Q. 1.** Describe the anaesthetic considerations in a patient with chronic kidney disease for lower limb orthopaedic surgery. (20)
- Q. 2.** Thermo regulation in paediatric patients and measures to prevent hypothermia during surgery. (20)
- Q. 3. Describe briefly:** (3 x 10 = 30)
- a. Three in one block
 - b. Use of β blockers in anaesthesia
 - c. Phospho-diesterase inhibitors
- Q. 4. Write short notes on:** (5 x 6 = 30)
- a. Oxygen toxicity
 - b. APGAR score
 - c. Auto PEEP
 - d. Complications of massive blood transfusion
 - e. Anion gap

X

POST GRADUATE EXAMINATION, MAY - 2017

**MD ANAESTHESIOLOGY
(PAPER THREE)**

APPLIED ANAESTHESIA IN RELATION TO CASE MANAGEMENT

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams wherever required

Q. 1. Define pain. Explain the pain pathways. (20)

Q. 2. What are the common causes of cardiac arrest in pregnancy? What are the guidelines for resuscitation in such patients? (20)

Q. 3. Describe briefly: (3 x 10 = 30)

- a. Opioid receptors
- b. LAST (Local Anaesthetic Systemic Toxicity)
- c. WHO ladder for cancer pain

Q. 4. Write short notes on: (5 x 6 = 30)

- a. Magnesium sulphate toxicity in eclampsia
- b. PDPH (Post Dural Puncture Headache)
- c. Blood transfusion reactions and management
- d. Ramsay sedation score
- e. Sedation in conservative dentistry

X

POST GRADUATE EXAMINATION, MAY - 2017

MD ANAESTHESIOLOGY

(PAPER FOUR)

RECENT ADVANCES

[Time allotted: Three hours]

[Max Marks: 100]

Note: Attempt all questions
Illustrate with suitable diagrams wherever required

- Q. 1.** Describe the DAS (Difficult Airway Society) algorithm for difficult intubation in obstetric patients. (20)
- Q. 2.** Describe the anaesthetic management of 2 year old child with Pierre-Robin syndrome and cleft palate. (20)
- Q. 3. Describe briefly:** (3 x 10 = 30)
- a. Describe factors responsible for venous air embolism. Discuss various modalities for detection of VAE
 - b. Patient control analgesia
 - c. Role of nitric oxide in anaesthesia and ICU
- Q. 4. Write short notes on:** (5 x 6 = 30)
- a. Baska mask
 - b. Berlin definition of ARDS
 - c. Plasmalyte
 - d. Levobupivacaine
 - e. Dantrolene

X