

April-2001

[KD 159]

Sub. Code : 2058

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch X — Anaesthesiology

Part II

Paper III — ANAESTHESIOLOGY INCLUDING
CRITICAL CARE AND RECENT ADVANCES IN
ANAESTHESIOLOGY

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Discuss the design and layout of an outpatient anaesthesia services facility to be started newly in your hospital. (25)
 2. Discuss the various theories in relation to circulation of blood during closed chest cardiac massage. (25)
 3. Write short notes on : (5 × 10 = 50)
 - (a) Walking epidural
 - (b) Glasgow coma scale
 - (c) Problems of prolonged endotracheal intubation
 - (d) Patient controlled analgesia
 - (e) Neuromuscular transmission monitoring.
-

November-2001

[KE 159]

Sub. Code : 2058

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch X — Anaesthesiology

Part II

Paper III — ANAESTHESIOLOGY INCLUDING
CRITICAL CARE AND RECENT ADVANCES IN
ANAESTHESIOLOGY

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Discuss the anatomical varieties of Tracheo-oesophageal Fistula. Describe the problems associated with the condition, anaesthetic management and intra-operative monitoring. (25)
 2. An obese individual of 50 years old weighing 98 kgs, is to be operated for incisional hernia. Discuss the anaesthetic implications and post operative management. (25)
 3. Write short notes on : (5 × 10 = 50)
 - (a) Oxygen free radicals.
 - (b) Laser and anaesthesia.
 - (c) Awareness during anaesthesia.
 - (d) Golden hour.
 - (e) Amiodorone.
-

March-2002

[KG 159]

Sub. Code : 2058

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch X — Anaesthesiology

Part II

Paper III — ANAESTHESIOLOGY INCLUDING
CRITICAL CARE AND RECENT ADVANCES IN
ANAESTHESIOLOGY

Time : Three hours, ~~Maximum~~ : 100 marks

Answer ALL questions.

1. Discuss the various methods of paediatric pain relief. (25)
 2. Describe the various conduction defects and arrhythmias of the heart. Enumerate the modern views of their treatment. (25)
 3. Write short notes on : (5 × 10 = 50)
 - (a) Nitric Oxide.
 - (b) ARDS.
 - (c) PEEP.
 - (d) Glasgow Coma Scale.
 - (e) P.O. care of a Cardiac Surgery case.
-

September-2002

[KH 159]

Sub. Code : 2058

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch X — Anaesthesiology

Part II

Paper III — ANAESTHESIOLOGY INCLUDING
CRITICAL CARE AND RECENT ADVANCES IN
ANAESTHESIOLOGY

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Discuss the recent trends in cardiopulmonary resuscitation. (25)
 2. Discuss the role of the anaesthesiologist in the Trauma Unit of a hospital. (25)
 3. Write short notes on : (5 × 10 = 50)
 - (a) Laser and anaesthesia
 - (b) Fentanyl
 - (c) Co-Axial circuits
 - (d) Malignant hyperpyrexia
 - (e) Failed intubation drill.
-

April-2003

[KI 159]

Sub. Code : 2058

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch X — Anaesthesiology

Part II

Paper III — ANAESTHESIOLOGY INCLUDING
CRITICAL CARE AND RECENT ADVANCES IN
ANAESTHESIOLOGY

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Discuss the organization, administration, work protocol, in setting up a day care anaesthesia work station. Brief the hazards involved and suggest remedial measures to promote day care surgery under anaesthesia. (25)
2. Outline the 'care of a comatose admitted to critical care unit. (25)
3. Write short notes on : (5 × 10 = 50)
 - (a) Prolonged life support
 - (b) Stellate ganglion block
 - (c) Metabolic cart
 - (d) BIPAP
 - (e) Myocardial preservation.

[KJ 159]

Sub. Code : 2058

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch X — Anaesthesiology

Part II

Paper III — ANAESTHESIOLOGY INCLUDING
CRITICAL CARE AND RECENT ADVANCES IN
ANAESTHESIOLOGY

Time : Three hours Maximum : 100 marks

Theory : Two hours and Theory : 80 marks

Forty minutes

M.C.Q. : 20 minutes M.C.Q. : 20 marks

M.C.Q. must be answered **SEPARATELY** on the
answer sheet provided as per the instructions on the
first page.

Answer ALL questions.

Draw suitable diagrams wherever necessary.

Discuss the anaesthetic management and post
operative care for patient undergoing posterior cranial
fossa surgery for evacuation of a meningioma. (15)

2. A patient aged 50 years is posted for Right pneumonectomy.

Discuss the preoperative lung function tests carried out for one lung anaesthesia and anaesthetic management of this case. (15)

3. (a) What are the newer modes of ventilation and their application in RICU?

(b) Management of Diabetic Ketoacidosis.

(c) Nitric oxide and its application in anaesthetic practice.

(d) Patient controlled analgesia (PCA)

(e) Write notes on COMBI tube.

(f) Sellick's maneuver.

(g) Prevention of Hypothermia in a child under anaesthesia.

(h) Write about Plasma volume expanders and perfluorocarbons.

(i) What are the hazards of incompatible blood transfusion?

(j) How is cyanide toxicity treated? (10 × 5 = 50)

[KL 159]

Sub. Code : 2058

II. Short notes :

(10 × 5 = 50)

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Branch X — Anaesthesiology

Part II

**Paper III — ANAESTHESIOLOGY INCLUDING
CRITICAL CARE AND RECENT ADVANCES IN
ANAESTHESIOLOGY**

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay : (2 × 15 = 30)

(1) Discuss the various modes of ventilations. Describe briefly the management of a 40 yrs old patient with organophosphorous poisoning on ventilator.

(2) Describe various non-invasive and invasive monitoring used in Anaesthesia. Discuss in detail Bispectral Index monitor.

- (a) Thrombo elastograph.
- (b) Remifentanyl.
- (c) Cardioversion and defibrillation.
- (d) Munroe Kelly Hypothesis.
- (e) Diagnosis of Brain Death.
- (f) Air Embolism.
- (g) Total Parenteral Nutrition.
- (h) Blood Substitutes.
- (i) PEEP.
- (j) Mallampatti classification.

[KM 159]

Sub. Code : 2058

M.D. DEGREE EXAMINATION.

(Revised Regulations)

Part II

Branch X — Anaesthesiology

Paper III — ANAESTHESIOLOGY INCLUDING
CRITICAL CARE AND RECENT ADVANCES IN
ANAESTHESIOLOGY

Time : Three hours Maximum : 100 marks

Theory : Two hours and Theory : 80 marks
forty minutes

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay : (2 × 15 = 30)

(1) Discuss the pathophysiology of Adult respiratory distress syndrome (ARDS)

(2) Discuss the anaesthetic implications and management of patients for Nero-endoscopic surgical procedures.

II. Short notes : (10 × 5 = 50)

(a) Vasopressin

(b) Management of a patient who is brain dead awaiting organ retrieval

(c) Continuous renal replacement therapy
(C.R.R.T)

(d) Transport of the critically ill patient

(e) Transfusion Triggers

(f) Percutaneous tracheostomy.

(g) Immune nutrition

(h) Inflammatory response to Cardiopulmonary
Bypass

(i) Management of a patient with acute
epiglottitis

(j) Day stay Anaesthesia.

[KO 159]

Sub. Code : 2056

M.D. DEGREE EXAMINATION.

Branch X — Anaesthesiology

**Paper III — ANAESTHESIOLOGY INCLUDING
CRITICAL CARE AND RECENT ADVANCES IN
ANAESTHESIOLOGY**

Time : Three hours Maximum : 100 marks

**Theory : Two hours and Theory : 80 marks
forty minutes**

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay questions : (2 × 15 = 30)

(1) How is Nitric oxide synthesised in human body? Discuss its pharmacological actions, uses and recommendations for the use of inhaled Nitric oxide in intensive care set up.

(2) Describe current concepts and perspectives of cerebral resuscitation.

II. Short notes : (10 × 5 = 50)

- (a) T piece trial of spontaneous breathing.
- (b) Brain death guidelines for children.
- (c) Non invasive positive pressure ventilation.
- (d) End – Tidal carbon dioxide measurement during cardiac arrest and C.P.R. (Cardio Pulmonary Resuscitation).
- (e) Prevention of central venous catheter infections.
- (f) Ganglion Impar block.
- (g) Adverse effects of Haemoglobin based oxygen carriers and artificial blood cells.
- (h) Hypermagnesimia.
- (i) Facet joint pain and its treatment.
- (j) Liquid ventilation.

[KP 159]

Sub. Code : 2056

M.D. DEGREE EXAMINATION.

Branch X — Anaesthesiology

ANAESTHESIOLOGY INCLUDING CRITICAL CARE
AND RECENT ADVANCES IN ANAESTHESIOLOGY

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay Questions :

1. What is Glasgow coma scale? How will you manage a case of head injury in intensive care unit? (20)
2. Discuss the recent advances in nutritional support in critical ill patient. Discuss the role of external feeding in detail. (15)
3. Discuss the management of organo phosphorous. Poisoned patient in ICU. (15)

II. Short notes :

(6 × 5 = 30)

- (a) Smoking and Anaesthesiologist.
 - (b) Anticholinergic syndrome
 - (c) Platelet abnormality
 - (d) Air embolism
 - (e) Computers in Anaesthesia
 - (f) Pneumoperitoneum.
-

[KQ 144]

Sub. Code : 2056

M.D. DEGREE EXAMINATION.

Branch X — Anaesthesiology

**ANAESTHESIOLOGY INCLUDING CRITICAL CARE
AND RECENT ADVANCES IN ANAESTHESIOLOGY**

Common to

**Part II — Paper III (Old / New / Revised Regulations)
(Candidates admitted from 1988–89 onwards)**

and

**Paper IV — (For candidates admitted from 2004–2005
onwards)**

Time : Three hours Maximum : 100 marks

**Theory : Two hours and Theory : 80 marks
forty minutes**

M.C.Q. : Twenty minutes M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay questions :

**(1) How do you design and set up an Intensive
Care Unit (ICU) in a 500 bedded General Hospital. (20)**

**(2) Describe the protocol for providing
pre-hospital and intrahospital care in the event of a
mass causality in your locality. (15)**

**(3) Describe the problems of awareness under
anaesthesia. Describe the medico legal implications and
methods of prevention of awareness. (15)**

II. Short notes : (6 × 5 = 30)

(a) Amidorone

(b) Oxygen concentrators and their uses

(c) Oxygen toxicity

(d) Capnography

(e) Somato sensory evoked potential and its uses

(f) Three in one block.

[KR 144]

Sub. Code : 2056

M.D. DEGREE EXAMINATION.

Branch X — Anesthesiology

ANESTHESIOLOGY INCLUDING CRITICAL CARE
AND RECENT ADVANCES IN ANESTHESIOLOGY

Common to

Part II — Paper III (For Candidates admitted upto
2003-04)

and

Paper IV — (For candidates admitted from
2004-2005 onwards)

Time : Three hours

Maximum : 100 marks

Theory : Two hours and
forty minutes

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

I. Essay :

(1) Discuss in detail the clinical practice guidelines, universal precautions and post exposure management for HIV virus and Hepatitis B virus in the ICU. (20)

(2) Discuss in detail the guideline changes for Adult Basic Life Support and Advanced Life Support. (15)

(3) Discuss the anesthetic agents and techniques used in ambulatory anesthesia. (15)

II. Short notes :

(6 × 5 = 30)

(a) Use of hypertonic saline in trauma resuscitation.

(b) APACHE II Score.

(c) Early goal directed therapy in sepsis.

(d) Damage control surgery.

(e) Ultrasound in regional anesthesia.

(f) Sengstaken-Blakemore tube.

MARCH 2008

[KS 147]

Sub. Code : 2042

M.D. DEGREE EXAMINATION.

Branch X — Anaesthesiology

ANAESTHESIOLOGY INCLUDING CRITICAL CARE AND
RECENT ADVANCES IN ANAESTHESIOLOGY

Common to

Part II — Paper III — (Old/New/Revised Regulations)
(Candidates admitted upto 2003–04)

and

Paper IV — (For candidates admitted from 2004–2005 onwards)

Q.P. Code : 202042

Time : Three hours

Maximum : 100 marks

Draw suitable diagrams wherever necessary.

Answer ALL questions.

- I. Essay questions : (2 × 20 = 40)
- (1) Discuss the intensive care management of an unconscious patient who has ingested an unknown poison.
 - (2) Describe the pathophysiology of bronchial Asthma. What are the developments in the pharmacological management of acute Asthma?
- II. Short notes : (10 × 6 = 60)
- (1) Desflurane.
 - (2) Prone ventilation.
 - (3) Public access defibrillation.
 - (4) Esophageal–Tracheal Combitube.
 - (5) Nitric oxide in anaesthetic practice.
 - (6) Complex Regional Pain Syndrome (CRPS).
 - (7) Hypernatraemia.
 - (8) Permissive Hypercapnia.
 - (9) Oxidant stress.
 - (10) Complications of tracheostomy.
-

March 2009

[KU 147]

Sub. Code: 2042

M.D. DEGREE EXAMINATION

Branch X – ANAESTHESIOLOGY

**Part II - Paper III - (Candidates admitted upto 2003-2004) and
Paper IV – (For candidates admitted from 2004-05 to 2007-2008)**

**ANAESTHESIOLOGY INCLUDING CRITICAL CARE AND
RECENT ADVANCES IN ANAESTHESIOLOGY**

Q.P. Code : 202042

Time : Three hours

Maximum : 100 marks

Draw suitable diagram wherever necessary

Answer ALL questions

I. Essay questions :

(2 x 20 = 40)

1. Discuss about the newer modes of ventilation.
2. Discuss the critical care management of a 10 years old child with snake bite.

II. Write short notes on :

(10 x 6 = 60)

1. Vasopressin.
2. Simulators in anaesthesia education.
3. Defibrillation.
4. Pain relief for carcinoma tongue.
5. Guillain barre syndrome – management.
6. Pre-emptive analgesia.
7. Failed intubation.
8. Cryoprecipitate.
9. Surfactant.
10. Extracorporeal membrane oxygenation.

September 2009

[KV 147]

Sub. Code: 2042

M.D. DEGREE EXAMINATION

Branch X – ANAESTHESIOLOGY

**Part II - Paper III - (Candidates admitted upto 2003-2004) and
Paper IV – (For candidates admitted from 2004-05 to 2007-2008)**

**ANAESTHESIOLOGY INCLUDING CRITICAL CARE AND
RECENT ADVANCES IN ANAESTHESIOLOGY**

Q.P. Code : 202042

Time : Three hours

Maximum : 100 marks

Draw suitable diagram wherever necessary

Answer ALL questions

I. Essay questions : (2 x 20 = 40)

1. Describe the management of a patient with snake bite neuro paralysis.
2. Discuss the pathophysiology and ventilatory strategies in a patient with ARDS.

II. Write short notes on : (10 x 6 = 60)

1. Thrombo elastogram.
2. Endotoxic shock.
3. Perfluro carbons.
4. 'HELLP' syndrome.
5. Plasma expanders.
6. Methemoglobinemia
7. Myasthenic syndrome
8. Nitric oxide.
9. Abdominal hypertension.
10. Nutrition in ICU.

March 2010

[KW 147]

Sub. Code: 2042

M.D. DEGREE EXAMINATION

Branch X – ANAESTHESIOLOGY

**Paper IV – (for candidates admitted from 2004-05 to 2007-2008) and
Part II / Paper III – (for candidates admitted from 2008-2009 onwards)**

**ANAESTHESIOLOGY INCLUDING CRITICAL CARE AND
RECENT ADVANCES IN ANAESTHESIOLOGY**

Q.P. Code : 202042

Time : Three hours

Maximum : 100 marks

Draw suitable diagram wherever necessary

Answer ALL questions

I. Essay questions : (2 x 20 = 40)

1. What is pain clinic? Discuss the role of anaesthesiologist in a pain clinic.
2. What is respiratory failure? Describe the types and causes of respiratory failure. Write the ICU management of patient of status asthmaticus in respiratory failure.

II. Write short notes on : (10 x 6 = 60)

1. Electrical safety in operation theatres.
2. Free radical scavengers.
3. Sedation in ICU.
4. Airway pressure release ventilation.
5. Occupational hazards faced by anaesthetist.
6. Cardioversion.
7. Nitric oxide.
8. Monitored anaesthesia care.
9. Fibre optic intubation.
10. Interpretation of ABG.

M.D. DEGREE EXAMINATION

Branch X – ANAESTHESIOLOGY

**ANAESTHESIOLOGY INCLUDING CRITICAL CARE AND RECENT
ADVANCES IN ANAESTHESIOLOGY**

**Paper IV – (for candidates admitted from 2004-05 to 2007-2008) and
Part II - Paper III - (for candidates admitted from 2008-2009 onwards)**

Q.P. Code : 202042

Time : Three hours

Maximum : 100 marks

Draw suitable diagram wherever necessary.

Answer ALL questions.

I. Essay questions :

(2 X 20 = 40)

1. Describe the emergency management of a patient with head injury, fracture shaft of femur with Glasgow coma scale 5.
2. Enumerate the management options available for treating chronic pain. Discuss the management of a case of Trigeminal Neuralgia.

II. Write short notes on :

(10 X 6 = 60)

1. Sedation for outpatient dentistry.
2. Permissive Hypercapnea.
3. Modified Rapid sequence induction.
4. Fresh frozen plasma.
5. APACHE scoring system.
6. Prone ventilation.
7. Para vertebral block.
8. Barrier Nursing.
9. Laevo bupivacaine.
10. Plasma expanders.

MAY 2011

[KY 147]

Sub. Code: 2042

**M.D. DEGREE EXAMINATION
BRANCH X – ANAESTHESIOLOGY
ANAESTHESIOLOGY INCLUDING CRITICAL CARE AND
RECENT ADVANCES IN ANAESTHESIOLOGY**

Q.P. Code : 202042

**Time : 3 hours
(180 Min)**

Maximum : 100 marks

Answer ALL questions in the same order.

I. Elaborate on :

Pages (Max.)	Time (Max.)	Marks (Max.)
-------------------------	------------------------	-------------------------

- | | | | |
|---|----|----|----|
| 1. Discuss the pathophysiology and anaesthetic management of a patient with preeclampsia. | 11 | 35 | 15 |
| 2. Discuss the physiology and the different modes of positive pressure ventilation. | 11 | 35 | 15 |

II. Write notes on :

- | | | | |
|-------------------------------------|---|----|---|
| 1. Nitric oxide. | 4 | 10 | 7 |
| 2. Postoperative visual loss. | 4 | 10 | 7 |
| 3. Brain death. | 4 | 10 | 7 |
| 4. Aprotinin. | 4 | 10 | 7 |
| 5. Glasgow coma scale. | 4 | 10 | 7 |
| 6. Adenosine. | 4 | 10 | 7 |
| 7. Mendelsons syndrome. | 4 | 10 | 7 |
| 8. Supraventricular tachyarrythmia. | 4 | 10 | 7 |
| 9. Low-molecular weight heparin. | 4 | 10 | 7 |
| 10. Diabetic ketoacidosis. | 4 | 10 | 7 |

October 2011

[KZ 147]

Sub. Code: 2042

M.D. DEGREE EXAMINATION

BRANCH X – ANAESTHESIOLOGY

**ANAESTHESIOLOGY INCLUDING CRITICAL CARE AND
RECENT ADVANCES IN ANAESTHESIOLOGY**

Q.P. Code : 202042

**Time : 3 hours
(180 Min)**

Maximum : 100 marks

Answer ALL questions in the same order.

I. Elaborate on :

	Pages (Max.)	Time (Max.)	Marks (Max.)
1. Give a detailed account of hyperbaric oxygen therapy.	11	35	15
2. Discuss the resuscitation and management of an unconscious patient with history of ingestion of an unknown poison.	11	35	15

II. Write notes on :

1. Peri operative nutritional support in renal failure, in hepatic failure and in neuro-surgical patients.	4	10	7
2. Bronchial hygiene therapy.	4	10	7
3. Duloxetine.	4	10	7
4. Prevention of central venous catheter infections.	4	10	7
5. Isoflurane.	4	10	7
6. Droperidol.	4	10	7
7. Modified alderete score.	4	10	7
8. Biphasic positive airway pressure.	4	10	7
9. Ventilator associated pneumonia.	4	10	7
10. Complications of Endo-tracheal intubation.	4	10	7

APRIL 2012

[LA 147]

Sub. Code: 2042

M.D. DEGREE EXAMINATION

BRANCH X – ANAESTHESIOLOGY

**ANAESTHESIOLOGY INCLUDING CRITICAL CARE AND RECENT
ADVANCES IN ANAESTHESIOLOGY**

Q.P. Code : 202042

**Time : 3 hours
(180 Min)**

Maximum : 100 marks

Answer ALL questions in the same order.

I. Elaborate on :

	Pages (Max.)	Time (Max.)	Marks (Max.)
1. Discuss the principles, assessment and methods of analgesia for pain relief in Burns.	16	35	15
2. Management of a patient who is not maintaining oxygen saturation after an elective abdominal surgery.	16	35	15

II. Write notes on :

1. Explain the Stress response to trauma and surgery.	4	10	7
2. What are the causes for Post operative jaundice ?	4	10	7
3. What is Pressure support ventilation?	4	10	7
4. Inj. Adenosine and its clinical uses.	4	10	7
5. Explain Cardiopulmonary resuscitation in pregnant women as per current guidelines.	4	10	7
6. What is meant by end tidal CO ₂ concentration and the relevance in clinical anesthesia.	4	10	7
7. Diagnosis and Treatment of hyperkalemia.	4	10	7
8. What is Preemptive Analgesia? How is it given?	4	10	7
9. The Golden Hour resuscitation as per the recent trauma life support guidelines.	4	10	7
10. Discuss Hyponatremia in elderly.	4	10	7

[LB 147]

OCTOBER 2012

Sub. Code: 2042

**M.D. DEGREE EXAMINATION
BRANCH X – ANAESTHESIOLOGY
ANAESTHESIOLOGY INCLUDING CRITICAL CARE AND RECENT
ADVANCES IN ANAESTHESIOLOGY**

Q.P. Code : 202042

**Time : 3 hours
(180 Min)**

Maximum : 100 marks

Answer ALL questions in the same order.

I. Elaborate on :

**Pages Time Marks
(Max.) (Max.) (Max.)**

1. Nutritional assessment and management of nutrition in a patient in ICU.

16 35 15

2. What are the Criteria for Brain death and describe the management of brain dead patient for organ donation.

16 35 15

II. Write notes on :

1. What is Refeeding syndrome?

4 10 7

2. What is the role of Recombinant Factor VII a in trauma?

4 10 7

3. What is the role of Xenon in anesthesia?

4 10 7

4. What is TRALI?

4 10 7

5. What are the changes in 2010 guidelines in BLS?

4 10 7

6. Write notes on Automated External Defibrillator.

4 10 7

7. Enumerate the Health hazards for anesthesiologists.

4 10 7

8. What are the indications for Heliox?

4 10 7

9. How is Hyponatremia important to the anesthetist?

4 10 7

10. Discuss the Medico legal issues in anesthesia.

4 10 7

M.D. DEGREE EXAMINATION

BRANCH X –ANAESTHESIOLOGY

**ANAESTHESIOLOGY INCLUDING CRITICAL CARE AND RECENT
ADVANCES IN ANAESTHESIOLOGY**

Q.P.Code: 202042

Time: Three Hours

Maximum: 100 marks

I. Elaborate on:

(2X15=30)

1. Describe the management of anaesthesia in a 10 year old boy for removal of a foreign body from the bronchus
2. Discuss the nutritional support for the critically ill patients in intensive care units.

II. Write notes on:

(10X7=70)

1. Systemic responses to sepsis and their Management
2. Drugs and methods used for Analgesia and sedation in critically ill patients.
3. Properties and applications of Xenon in anaesthesia
4. Mechanisms and method of measurement of Intrinsic Positive End Expiratory pressure.
5. Properties and metabolism of Sevoflurane.
6. Mechanism of action and uses of Flumazenil.
7. Scoring and interpretation of the Post-anaesthesia discharge scoring system.
8. Definition and measurement of Work of breathing.
9. Ventilatory management of severe asthma.
10. Measurement and interpretation of Diffusing capacity of lungs.

[LD 147]

OCTOBER 2013

Sub. Code: 2042

M.D. DEGREE EXAMINATION

BRANCH X – ANAESTHESIOLOGY

ANAESTHESIOLOGY INCLUDING CRITICAL CARE AND

RECENT ADVANCES IN ANAESTHESIOLOGY

Q.P.Code: 202042

Time: Three Hours

Maximum: 100 marks

I. Elaborate on:

(2 x 15 = 30)

1. What are the indications of Renal Replacement therapy? Discuss the different modes of renal replacement therapy.
2. Discuss the various components of Surviving Sepsis Guidelines.

II. Write notes on:

(10 x 7 = 70)

1. Pressure Support Ventilation – Description, Uses and advantages.
2. Cryoprecipitate – Contents, uses dose.
3. Enumerate the causes and treatment of thrombocytopenia in the ICU.
4. Write the algorithm for pulseless electrical activity.
5. Obstructive Sleep Apnoea – Symptoms and diagnostic criteria.
6. Enumerate the clinical manifestations of anaphylaxis.
7. Norepinephrine – Pharmacology, indications and dosage.
8. Causes, manifestations and treatment of Methaemoglobinemia.
9. Ventilator Associate pneumonia – Risk factors and recommendations for prevention.
10. What are the different methods of randomization and blinding?

[LE 147]

APRIL 2014

Sub. Code: 2042

**M.D. DEGREE EXAMINATION
BRANCH X –ANAESTHESIOLOGY
ANAESTHESIOLOGY INCLUDING CRITICAL CARE AND
RECENT ADVANCES IN ANAESTHESIOLOGY**

Q.P. Code :202042

Time : Three Hours

Maximum : 100 marks

I. Elaborate on:

(2X15=30)

1. Describe the ECG changes that occur in an acute anterior wall ST segment elevation myocardial infarction. Describe briefly management and reperfusion therapy on admission.
2. Describe the pathogenesis, clinical features and ventilator management of Acute Respiratory Distress Syndrome.

II. Write notes on:

(10X7=70)

1. Comment on oxygen therapy with oxygen mask with reservoir bags.
2. Anaesthetic management of post tonsillectomy bleeding.
3. Intravenous Paracetamol.
4. Dynamic hyperinflation.
5. Compare Desflurane with Sevoflurane.
6. Prothrombin complex concentrate.
7. Modified Child –Turcotte-Pugh & Model for End Stage Liver Disease scoring system.
8. Newer Anticoagulant drugs.
9. Lactate Acidosis.
10. Post operative enteral nutrition.

[LF 147]

OCTOBER 2014

Sub. Code: 2042

**M.D. DEGREE EXAMINATION
BRANCH X – ANAESTHESIOLOGY**

**PAPER IV - ANAESTHESIOLOGY INCLUDING CRITICAL CARE AND
RECENT ADVANCES IN ANAESTHESIOLOGY**

Q.P. Code :202042

Time : Three Hours

Maximum : 100 marks

I. Elaborate on: **(2 x 15 = 30)**

1. Outline the recent BLS and ACLS guidelines and the theories in relation to this.
2. Discuss the various modes of ventilation. Describe the management of a young man with organophosphorus poisoning on a ventilator.

II. Write notes on: **(10 x 7 = 70)**

1. Evoked potential monitoring and its uses.
2. Patient controlled Analgesia.
3. Blood substitutes.
4. Continuous renal replacement therapy.
5. Vasopressin.
6. Ganglion Impar block.
7. Use of nitric oxide in ICU.
8. Glasgow coma scale.
9. Hypertonic saline in trauma resuscitation.
10. HELLP syndrome.

[LG 147]

APRIL 2015

Sub. Code: 2042

M.D. DEGREE EXAMINATION

BRANCH X – ANAESTHESIOLOGY

**PAPER IV – ANAESTHESIOLOGY INCLUDING CRITICAL CARE
AND RECENT ADVANCES IN ANAESTHESIOLOGY**

Q.P.Code: 202042

Time: Three Hours

Maximum: 100 marks

Answer ALL questions

I. Elaborate on:

(2 x 15 = 30)

1. A morbidly obese 40 yr old patient weighing 110kg is to be posted for laparoscopic bariatric surgery. Discuss the anaesthetic implications and post operative management.
2. Discuss the design and layout of day care anaesthesia service. Describe the admission and discharge criteria in outpatient care procedures.

II. Write notes on:

(10 x 7 = 70)

1. Walking epidural.
2. Goal directed Peri-operative fluid therapy.
3. Problems of prolonged endotracheal tube intubation.
4. Patient controlled analgesia.
5. Neuromuscular transmission monitoring.
6. Oxygen free radicals.
7. Amiodarone.
8. Golden hour in Trauma Victim.
9. Failed intubation drill.
10. Remifentanil.

[LH 147]

OCTOBER 2015

Sub. Code: 2042

**M.D. DEGREE EXAMINATION
BRANCH X – ANAESTHESIOLOGY
PAPER IV – ANAESTHESIOLOGY INCLUDING CRITICAL CARE
AND RECENT ADVANCES IN ANAESTHESIOLOGY**

Q.P. Code: 202042

Time: Three Hours

Maximum: 100 marks

Answer ALL questions

I. Elaborate on:

(2 x 15 = 30)

1. A 50 year old male posted for right pneumonectomy. Discuss pre-operative lung function tests and anaesthetic management.
2. Describe various non-invasive and invasive monitoring used in anaesthesia. Discuss the different neuromonitoring techniques and their advantages.

II. Write notes on:

(10 x 7 = 70)

1. Neuromuscular transmission monitoring.
2. Walking epidural.
3. PEEP and CPAP.
4. Malignant hyperpyrexia.
5. Anaesthesia for Day Care Surgery.
6. Transfusion triggers.
7. Interventional Pain management.
8. Transesophageal echocardiography.
9. Use of Nitrous oxide in modern day anaesthesia.
10. Permissive hypercapnia.

[LI 147]

APRIL 2016

Sub. Code: 2042

**M.D. DEGREE EXAMINATION
BRANCH X – ANAESTHESIOLOGY
PAPER IV – ANAESTHESIOLOGY INCLUDING CRITICAL CARE AND
RECENT ADVANCES IN ANAESTHESIOLOGY**

Q.P. Code :202042

Time : Three Hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Discuss the various modes of ventilation and describe briefly the management of 40yr old patient with organophosphorus poisoning.
2. Discuss the various invasive and non invasive monitoring in anaesthesia. Discuss in detail invasive blood pressure and cardiac output monitoring.

II. Write notes on:

(10 x 7 = 70)

1. Total parenteral nutrition.
2. Application of USG in anaesthesia.
3. Early goal directed therapy in sepsis.
4. Blood component therapy.
5. Three-in-one block.
6. Supraglottic airway device.
7. Levitan scope.
8. Continuous Ambulatory Peritoneal dialysis.
9. Hormone therapy is deceased donor.
10. Levosimendan.

[LJ 147]

OCTOBER 2016

Sub. Code: 2042

**M.D. DEGREE EXAMINATION
BRANCH X – ANAESTHESIOLOGY
PAPER IV – ANAESTHESIOLOGY INCLUDING CRITICAL CARE AND
RECENT ADVANCES IN ANAESTHESIOLOGY**

Q.P. Code :202042

Time : Three Hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Discuss role of anaesthesiologist outside the operating room
2 years old child with history of fall from the cot is planned for MRI.
How will you anaesthetise this child?
2. Describe the design of a post anaesthesia care unit attached to a
cardiothoracic operation theatre.
Discuss the complications of Central Venous Cannulation.

II. Write notes on:

(10 x 7 = 70)

1. Cardiac specific biomarkers.
2. XENON.
3. Role of ACE inhibitors in cardio protection.
4. Ventilator strategies in ARDS.
5. Magnesium as a therapeutic ion.
6. Autologous transfusion.
7. Intra Venous fluid therapy in new born.
8. Classification of obesity.
9. Oxygen toxicity.
10. Internal cardioverter defibrillator.

**M.D. DEGREE EXAMINATION
BRANCH X – ANAESTHESIOLOGY
PAPER IV – ANAESTHESIOLOGY INCLUDING CRITICAL CARE AND
RECENT ADVANCES IN ANAESTHESIOLOGY**

Q.P. Code :202042

Time : Three Hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Discuss the recent trends in cardio-pulmonary resuscitation. Describe CPR in pregnancy.
2. Discuss the anaesthetic management and post-operative care for patient undergoing posterior cranial fossa surgery for evacuation of meningioma.

II. Write notes on:

(10 x 7 = 70)

1. Stellate ganglion block.
2. Thrombolytic therapy.
3. BIPAP.
4. Intra operative monitoring in Liver transplant surgeries.
5. Transfusion trigger.
6. Modified sellick's manouvreur.
7. Plasma volume expanders.
8. Cerebral function monitors.
9. Extubation criteria in ICU.
10. Cardioversion and defibrillation.

[LL 147]

OCTOBER 2017

Sub. Code: 2042

**M.D. DEGREE EXAMINATION
BRANCH X – ANAESTHESIOLOGY
PAPER IV – ANAESTHESIOLOGY INCLUDING CRITICAL CARE AND
RECENT ADVANCES IN ANAESTHESIOLOGY**

Q.P. Code :202042

Time : Three Hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Discuss the signs and symptoms and management of a Diabetic Ketoacidosis patient. How will you anaesthetise this patient posted for surgical debridement?
2. Discuss the synthesis and pharmacological actions of nitric oxide. What is the role of inhaled nitric oxide in ICU setup?

II. Write notes on:

(10 x 7 = 70)

1. COX-2 inhibitors.
2. Transfusion related acute lung injury (TRALI).
3. Placental barrier.
4. High dose opioid anaesthesia.
5. Co-oximeter.
6. Inj. Adenosine.
7. TEE as intraoperative monitor.
8. Intra-aortic balloon pump.
9. Foeto maternal ratio.
10. High quality CPR.

[LM 147]

MAY 2018

Sub. Code: 2042

M.D. DEGREE EXAMINATION

BRANCH X – ANAESTHESIOLOGY

**PAPER IV – ANAESTHESIOLOGY INCLUDING CRITICAL CARE AND
RECENT ADVANCES IN ANAESTHESIOLOGY**

Q.P. Code :202042

Time : Three Hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Anaesthetic management and postoperative care of a patient with severe PIH with dilated cardiomyopathy for emergency LSCS.
2. Resuscitation, management and postoperative care of a patient with cut throat injury involving trachea.

II. Write notes on:

(10 x 7 = 70)

1. Intra arterial cannulation.
2. Extra Corporeal Membrane Oxygenation.
3. Platelet transfusion.
4. 2015 BLS guidelines.
5. Coeliac plexus block.
6. Morphine poisoning.
7. Somato Sensory Evoked Potential.
8. Metabolic response to surgical injury.
9. Nitric Oxide.
10. Weaning from Ventilation.

[LN 147]

OCTOBER 2018

Sub. Code: 2042

M.D. DEGREE EXAMINATION

BRANCH X – ANAESTHESIOLOGY

**PAPER IV – ANAESTHESIOLOGY INCLUDING CRITICAL CARE AND
RECENT ADVANCES IN ANAESTHESIOLOGY**

Q.P. Code: 202042

Time : Three Hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Anaesthetic management of a 3 year old child with foreign body in trachea for emergency bronchoscopic removal.
2. Describe the various methods of assessment of respiratory failure. Discuss the ventilator management of a patient with COPD.

II. Write notes on:

(10 x 7 = 70)

1. Patient controlled Analgesia.
2. Transfusion Related Acute Lung Injury.
3. Intraoperative cell salvage.
4. Video Laryngoscope.
5. Trans Esophageal Echocardiography.
6. Resuscitation in near drowning.
7. Trigeminal Nerve Block.
8. Organophosphorous poisoning.
9. Flail chest.
10. Universal precautions.

[LO 147]

MAY 2019

Sub. Code: 2042

M.D. DEGREE EXAMINATION

BRANCH X – ANAESTHESIOLOGY

**PAPER IV – ANAESTHESIOLOGY INCLUDING CRITICAL CARE AND
RECENT ADVANCES IN ANAESTHESIOLOGY**

Q.P. Code: 202042

Time : Three Hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Discuss the management of a patient with ventricular fibrillation. Discuss the changes in the latest AHA guidelines from the previous AHA guidelines.
2. Discuss the Nutritional support for the critically ill patient in Intensive Care Units.

II. Write notes on:

(10 x 7 = 70)

1. Malignant hyperthermia.
2. Amiodarone.
3. Glasgow coma scale.
4. HELLP syndrome.
5. Newer Anticoagulants.
6. Anaesthetic challenges in robotic surgeries.
7. Ventilator associated pneumonia.
8. Trigeminal neuralgia.
9. SOFA and qSOFA in sepsis.
10. Tracheostomy.

[LP 147]

OCTOBER 2019

Sub. Code: 2042

M.D. DEGREE EXAMINATION

BRANCH X – ANAESTHESIOLOGY

**PAPER IV – ANAESTHESIOLOGY INCLUDING CRITICAL CARE AND
RECENT ADVANCES IN ANAESTHESIOLOGY**

Q.P. Code: 202042

Time : Three Hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Describe the Aetiopathogenesis, clinical features and ventilator management of Acute Respiratory Distress Syndrome.
2. What are the criteria for Brain Death and describe the management of brain dead patients for organ donation?

II. Write notes on:

(10 x 7 = 70)

1. Fast ultrasound in emergency room.
2. Magnesium Toxicity and Management.
3. Defibrillation.
4. Three in one block.
5. Remifentanyl.
6. Obstructive sleep apnea.
7. Newer supraglottic airway device.
8. ECMO.
9. Sedation in ICU.
10. Thromboelastogram.

[LQ 147]

AUGUST 2020
(MAY 2020 SESSION)

Sub. Code: 2042

M.D. DEGREE EXAMINATION

BRANCH X – ANAESTHESIOLOGY

**PAPER IV – ANAESTHESIOLOGY INCLUDING CRITICAL CARE AND
RECENT ADVANCES IN ANAESTHESIOLOGY**

Q.P. Code: 202042

Time : Three Hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. What are the signs and symptoms of organophosphorous poisoning and management of organophosphorous poisoning in the Intensive care unit?
2. Discuss the causes and the management of Acute renal failure.

II. Write notes on:

(10 x 7 = 70)

1. Milrinone.
2. Post operative delirium.
3. Surfactants.
4. Discuss briefly the anaesthetic considerations at high altitude.
5. Pressure support ventilation.
6. Clinical features diagnosis and management of paracetamol poisoning.
7. Sedation in Intensive care unit.
8. Airway fire protocol during laser surgery.
9. Newer 5 HT3 antagonist.
10. Signs, symptoms, pulmonary complications, diagnosis and management of corona virus infection.

[LS 147]

NOVEMBER 2020
(OCTOBER 2020 SESSION)

Sub. Code: 2042

M.D. DEGREE EXAMINATION

BRANCH X – ANAESTHESIOLOGY

**PAPER IV – ANAESTHESIOLOGY INCLUDING CRITICAL CARE AND
RECENT ADVANCES IN ANAESTHESIOLOGY**

Q.P. Code: 202042

Time : Three Hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Discuss the management of a case of 40% burns.
2. Define and classify shock. Discuss the recent guidelines for the management of septic shock.

II. Write notes on:

(10 x 7 = 70)

1. Prone ventilation.
2. Sugammadex.
3. Fat embolism.
4. Anaesthetic problems in robotic surgery.
5. Non invasive ventilation.
6. Apnea test.
7. CPR in drowning.
8. Signs, symptoms, pulmonary complications, diagnosis and management of corona virus Infection.
9. Anaphylaxis in anaesthesia practice.
10. Use of muscle relaxants in intensive care unit.

[MD 0721]

JULY 2021
(MAY 2021 SESSION)

Sub. Code: 2042

M.D. DEGREE EXAMINATION

BRANCH X – ANAESTHESIOLOGY

**PAPER IV – ANAESTHESIOLOGY INCLUDING CRITICAL CARE AND
RECENT ADVANCES IN ANAESTHESIOLOGY**

Q.P. Code: 202042

Time : Three Hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Discuss the various modalities of pain management in cancer patients . Elucidate the role of ketamine in chronic pain management.
2. A 70 year old male patient on low molecular weight heparin posted for total hip replacement. Discuss the anaesthetic management.

II. Write notes on:

(10 x 7 = 70)

1. Golden hour concept in trauma.
2. Postoperative care of cardiac surgery case.
3. Failed intubation algorithm and drill.
4. Cyanide toxicity.
5. Levosimendan.
6. SCRIPT concept in TAEI.
7. Coanalgesics.
8. Prevention and management of hypothermia in a child under anaesthesia.
9. BIPAP.
10. Somatosensory evoked potentials.

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

[MD 1121]

**NOVEMBER 2021
(OCTOBER 2021 SESSION)**

Sub. Code: 2042

M.D. DEGREE EXAMINATION

BRANCH X – ANAESTHESIOLOGY

**PAPER IV – ANAESTHESIOLOGY INCLUDING CRITICAL CARE AND
RECENT ADVANCES IN ANAESTHESIOLOGY**

Q.P. Code: 202042

Time : Three Hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Discuss the resuscitation and management of a young man admitted with a history of organophosphorus compound poisoning.
2. Discuss Noninvasive and Invasive monitoring used in anaesthesia.

II. Write notes on:

(10 x 7 = 70)

1. Metabolic cart.
2. Management of Diabetic Ketoacidosis
3. Inflammatory response to Cardiopulmonary Bypass.
4. Radiofrequency Ablation Therapy in Trigeminal Neuralgia. Medical and anaesthetic emergencies in dentinting.
5. Cannabis.
6. Weaning from Mechanical ventilation.
7. Nitric Oxide.
8. Continuous Renal Replacement Therapy.
9. CPR in Pregnant women with the Recent Guidelines.
10. Goal Directed Fluid Therapy.

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

[MD 0522]

MAY 2022

Sub. Code: 2042

M.D. DEGREE EXAMINATION

BRANCH X – ANAESTHESIOLOGY

**PAPER IV – ANAESTHESIOLOGY INCLUDING CRITICAL CARE AND
RECENT ADVANCES IN ANAESTHESIOLOGY**

Q.P. Code: 202042

Time : Three Hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Define shock, causes of septic shock, describe in detail about management of septic shock.
2. Management of Covid Positive patient in Acute respiratory distress with lung involvement of 20/25 in ICU.

II. Write notes on:

(10 x 7 = 70)

1. Zymogens.
2. TRALI.
3. Prolonged life support.
4. Immune Nutrition.
5. Triage criteria in relation to trauma.
6. Hypernatremia.
7. Anaconda Device.
8. Video Laryngoscope.
9. Modified Aldrete Criteria.
10. Neonatal Asphyxia and local anesthetics in pregnancy.

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

[MD 1022]

OCTOBER 2022

Sub. Code: 2042

M.D. DEGREE EXAMINATION

BRANCH X – ANAESTHESIOLOGY

**PAPER IV – ANAESTHESIOLOGY INCLUDING CRITICAL CARE AND
RECENT ADVANCES IN ANAESTHESIOLOGY**

Q.P. Code: 202042

Time : Three Hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Discuss the management of a patient with ventricular fibrillation. Discuss the changes in the latest AHA guidelines from the previous AHA guidelines.
2. Discuss the signs and symptoms of Paracetamol poisoning and management of it.

II. Write notes on:

(10 x 7 = 70)

1. Post Operative Cognitive Dysfunction.
2. Tracheostomy.
3. Jet Ventilation.
4. Glasgow coma scale.
5. Anticoagulant drugs.
6. Trigeminal neuralgia.
7. Obstructive sleep apnea.
8. Lactic acidosis.
9. ECMO.
10. Methylprednisolone.

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

[MD 0723]

**JULY 2023
(MAY 2023 EXAM SESSION)**

Sub. Code: 2042

**M.D. DEGREE EXAMINATION
BRANCH X – ANAESTHESIOLOGY**

**PAPER IV – ANAESTHESIOLOGY INCLUDING CRITICAL CARE AND
RECENT ADVANCES IN ANAESTHESIOLOGY**

Q.P. Code: 202042

Time : Three Hours

Maximum : 100 Marks

I. Elaborate on: **(2 x 15 = 30)**

1. Discuss in Detail the Management of a Road Traffic Accident Patient with Facial Injuries Involving Maxilla, Mandible and Neck.
2. Describe the aetiopathogenesis, clinical features and management of Adult Respiratory Distress Syndrome.

II. Write notes on: **(10 x 7 = 70)**

1. Flumazenil.
2. Stellate Ganglion Block.
3. Weaning Criteria.
4. ECMO.
5. Naloxone vs Nalorphine.
6. HELLP Syndrome.
7. Anion Gap.
8. Ventricular Tachycardia.
9. Chronic Pain Management.
10. Total Parenteral Nutrition.

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

[MD 1223]

**DECEMBER 2023
(OCTOBER 2023 EXAM SESSION)**

Sub. Code: 2042

**M.D. DEGREE EXAMINATION
BRANCH X – ANAESTHESIOLOGY**

**PAPER IV – ANAESTHESIOLOGY INCLUDING CRITICAL CARE AND
RECENT ADVANCES IN ANAESTHESIOLOGY**

Q.P. Code: 202042

Time : Three Hours

Maximum : 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Automation in the Delivery of Anaesthetics.
2. Brain Death – Pathogenesis and Management of the Brain Dead patient until organ retrieval.

II. Write notes on:

(10 x 7 = 70)

1. Hybrid Operating Room and Procedures.
2. Artefacts in Ultrasonogram.
3. Paediatric Cardiac Arrest during Anaesthesia.
4. Transjugular Intra Hepatic Portosystemic Shunt.
5. Post Anaesthesia Care Unit.
6. Anaesthesia for Electro physiology and Cardiac Catheterization procedures.
7. Acute Mountain Sickness.
8. General and Regional Anaesthesia in Space.
9. Remimazolam.
10. General approach to a bleeding trauma patient.
