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

[MD 0524] **MAY 2024** **Sub. Code: 4028**

M.D. DEGREE EXAMINATION

BRANCH X – ANAESTHESIOLOGY

PAPER IV – INTENSIVE CARE MEDICINE, PAIN MEDICINE AND RECENT ADVANCES

Q.P. Code: 204028

Time : Three Hours **Maximum : 100 Marks**

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

1. Neurological failure (coma).
   a) Causes and pathogenesis.
   b) Cerebral function monitoring.
   c) Diagnostic criteria for Brain stem death.

2. Newer modes of ventilation.
   a) Ventilatory strategies in ARDS.
   b) VAP (Ventilator associated pneumonia).

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

1. Neuropathic pain.
2. Front of neck access (FONA).
3. Cardiogenic pulmonary edema.
4. Nitric oxide.
5. POCUS (point of care ultrasound).
6. IABP.
7. Amiodarone.
8. CRPS.
9. Remimazolam.
10. Tension Pneumothorax.

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

[MD 1224] **DECEMBER 2024** **Sub. Code: 4028**
(OCTOBER 2024 EXAM SESSION)

M.D. DEGREE EXAMINATION

ANAESTHESIOLOGY

PAPER IV – INTENSIVE CARE MEDICINE, PAIN MEDICINE AND RECENT ADVANCES

Q.P. Code: 204028

Time : Three Hours **Maximum : 100 Marks**

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

1. Explain in detail the etiology, pathogenesis, types, diagnosis and management of acute pulmonary edema in the perioperative setting.

2. Define metabolic acidosis. Discuss the various causes, diagnosis and management of metabolic acidosis in the ICU.

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

1. Severity of illness scoring system and its significance.
2. Postoperative cognitive dysfunction.
3. Noninvasive haemodynamic monitoring.
4. Nutrition in ICU.
5. Massive transfusion protocol.
6. Ventilator-induced lung injury.
7. Compartment syndrome.
8. Best PEEP and Optimal PEEP.
9. Post caesarean analgesia.
10. Near-infrared spectroscopy (NIRS).

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

[MD 0525] **MAY 2025** **Sub. Code: 4028**

M.D. DEGREE EXAMINATION

ANAESTHESIOLOGY

PAPER IV – INTENSIVE CARE MEDICINE, PAIN MEDICINE AND RECENT ADVANCES

Q.P. Code: 204028

Time : Three Hours **Maximum : 100 Marks**

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

1. Describe the design of a post anaesthesia care unit attached to a cardiothoracic operation theatre. Discuss the complications of Arterial Cannulation.

2. Resuscitation, management and postoperative care of a patient with cut throat injury involving trachea.

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

1. Patient controlled analgesia.

2. Liquid ventilation.

3. Walking epidural

4. Ciprofol.

5. Robotic surgery.

6. HFNO.

7. Diabetic Ketoacidosis.

8. Zymogens.

9. Immune nutrition.

10. Transfusion trigger.

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

[MD 1025] **OCTOBER 2025** **Sub. Code: 4028**

M.D. DEGREE EXAMINATION

ANAESTHESIOLOGY

PAPER IV – INTENSIVE CARE MEDICINE, PAIN MEDICINE AND RECENT ADVANCES

Q.P. Code: 204028

Time : Three Hours **Maximum : 100 Marks**

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

1. a) Describe in detail about Extracorporeal Membrane Oxygenation (ECMO) for a patient with Circulatory failure.
   b) Role of anesthesiologist in Extracorporeal Membrane Oxygenation (ECMO).

2. Describe in detail about the Anaesthetic implications in Robotic surgeries.

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

1. Lung ultrasound.
2. Blood transfusion reactions.
3. Implantable cardioverter defibrillators.
4. Base excess.
5. Neurally Adjusted Ventilatory Assist (NAVA).
6. Post Cardiac arrest care algorithm.
7. Hyperbaric oxygen therapy.
8. Use of Opioids in Chronic pain management.
9. Advance care planning.
10. Criteria for patient selection for Ambulatory surgery.

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

[MD 0526] **MAY 2026** **Sub. Code: 4028**

M.D. DEGREE EXAMINATION

ANAESTHESIOLOGY

PAPER IV – INTENSIVE CARE MEDICINE, PAIN MEDICINE AND RECENT ADVANCES

Q.P. Code: 204028

Time : Three Hours **Maximum : 100 Marks**

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

1. What are the indications and modes of renal replacement therapy? Discuss the role of CRRT in septic shock.

2. How will you calculate the energy requirements in an ICU patient? What are the advantages and disadvantages of parenteral versus enteral nutrition?

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

1. Perfluorocarbons.
2. Circulatory assist devices.
3. APACHE score.
4. Neuroplasticity - prevention and treatment.
5. Assessment of pain in children.
6. Role of sedation in ICU patients.
7. Theatre pollution.
8. Lung ultrasound.
9. Simulators in anaesthesia.
10. Bloodless medicine.

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