

ANAESTHESIOLOGY

PAPER – I

Time : 3 hours
Max. Marks : 100

ANAES/D/10/01/I

**Attempt all questions in order.
Each question carries 10 marks**

1. Describe clinical presentation, pathophysiology and management of malignant hyperthermia.
2. Describe the pharmacokinetics and pharmacodynamics of etomidate. Discuss in brief its role in clinical practice.
3. Describe ventilatory strategy in management of Adult Respiratory Distress Syndrome.
4. Describe the causes and management of venous air embolism.
5. What is recombinant Factor VIIa? Describe the clinical usage of it.
6. Describe regional block for removal of infected corn foot.
7. What are the criteria for discharge from post anesthesia care unit?
8. Enumerate the "Circulatory Assist Devices". What are the indications, contraindications and complications of IABP?
9. Enumerate "Classical Biological Warfare Agents". Describe physical findings, pathogenesis and treatment of anthrax.
10. What is port-operative jaundice? Describe its causes.

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PAPER – II

ANAES/D/10/01/II

Time : 3 hours
Max. Marks : 100

Attempt all questions in order.
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1. Enumerate the indications of Tracheostomy. Describe different techniques of performing percutaneous dilatational tracheostomy.
2. What are the causes of obstetrics hemorrhage? Describe its management including anesthetic.
3. Describe consent in anesthesia practice including ethical and legal aspects.
4. Enumerate causes of post-operative visual loss. Describe the pathophysiology and its management.
5. Describe various components of 'surviving sepsis' guidelines.
6. Describe the complications associated with sitting position during posterior fossa surgery and their management.
7. Describe the anesthetic management in a patient scheduled for MRI.
8. Describe the risk factors and predictors of post-operative nausea and vomiting. Describe its management in the pre-operative period.
9. Describe pathophysiology, clinical features, diagnosis and management of fat embolism.
10. What are the pre-operative considerations in Total Hip Arthroplasty? What are the goals of its intra-operative management?

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PAPER – III

Time : 3 hours
Max. Marks : 100

ANAES/D/10/01/III

Attempt all questions in order.
Each question carries 10 marks.

1. Describe clinical manifestation of diabetic autonomic neuropathy. What are its implications?
2. What are the pathophysiological insults which exacerbate the primary brain injury following head trauma? How can these effects be reduced?
3. What are the indications of Renal Replacement Therapy? List different modes of renal replacement therapy. Discuss the role of CRRT in specific shock.
4. Discuss the pre-operative evaluation and preparation of a 55 year old male with bronchiectasis scheduled for right lower lobe excision.
5. Describe the techniques for anaesthetizing airway for awake fiberoptic laryngoscopy and intubation through nasal route in an adult with restricted mouth opening.
6. Describe the anesthetic considerations in patients having coronary artery stents.
7. Classify cardiomyopathies. Describe management of a 60 year old male with dilated cardiomyopathy scheduled for laparotomy.
8. Describe anesthetic concerns for regional anesthesia in a patient on anticoagulants.
9. Describe the principles of weaning from mechanical ventilation.
10. Describe the effects of smoking and its anesthetic implications.

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PAPER – IV

Time : 3 hours
Max. Marks : 100

ANAES/D/10/01/IV

Attempt all questions in order.
Each question carries 10 marks

Write short notes on:

1. Draw a diagram to show various lung volumes and capacities. Describe the spirometry features of patients with obstructive and restrictive pulmonary disorder.
2. Describe the anatomy of Stellate ganglion. Discuss indications, techniques and implications of Stellate ganglion block.
3. Describe coronary circulation. Discuss factors affecting oxygen demand and supply to the myocardium.
4. What are the major causes of hypoxaemia? What is hypoxic pulmonary vasoconstriction? How can general anesthesia worsen V/Q mismatch.
5. Classify vaporizers. Discuss the effect of altered barometric pressure on the performance of vaporizers?
6. What do you understand by "Randomization" and "Blinding" in a clinical study? What is the importance of "p-value" and "power of the study"?
7. What is Minimal Alveolar Concentration (MAC)? Discuss the factors which effect the alveolar concentration of an inhalational agent.
8. Classify antihypertensive drugs. Describe the management of a hypertensive episode during anesthesia?
9. Describe the cardiac conduction system. How do you manage a patient with paroxysmal supra ventricular tachycardia?
10. Describe the anesthesia machine check protocol prior to induction of anesthesia.