

**ANAESTHESIOLOGY**

**PAPER- I**

**Time : 3 hours**  
**Max. Marks : 100**

**ANS/D/11/1/I**

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

1. Discuss the physiologic changes of cardiovascular and respiratory systems in pregnancy. Discuss the anaesthetic considerations and management of pregnant patient undergoing non-obstetric surgery during first trimester. 4+6
2. Discuss the anaesthetic implications and peri-operative management of a six month old child scheduled for excision of cystic hygroma. 4+6
3. What are the methods of pain assessment in infants and children? Discuss the pharmacological management of acute pain in pediatric patients. 4+6
4. Define Body Mass Index (BMI). Classify obesity and discuss the anaesthetic considerations in a morbidly obese patient. 2+2+6
5. Define Fink effect, diffusion hypoxia and second gas effect. How are they of importance to the anesthetist? 6+4
6. Write the goals of pre-anaesthetic check up, ASA risks grading and fasting guidelines. 4+3+3
7. What are the differences between a subdural and subarachnoid block? Write clinical features and management of PDPH. 2+4+4
8. What is diastolic dysfunction? Discuss its evaluation and implications to the anesthetist. 2+4+4
9. Enumerate the causes of air embolism in clinical practice. Discuss the clinical features and its management. 2+4+4
10. Classify opioids. Discuss the merits and demerits of epidural fentanyl and morphine. 4+3+3

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**PAPER- II**

**Time : 3 hours**  
**Max. Marks : 100**

**ANS/D/11/1/II**

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

1. What are the causes of intra-operative hypertension in a previously normotensive patient? Discuss various modalities to manage it. 4+6
2. Discuss the differential diagnosis of intra-operative bronchospasm. How will you manage it? 6+4
3. Discuss the physiological changes secondary to pain in labor. Describe the role of para-cervical and pudendal nerve blocks in obstetric analgesia. 4+3+3
4. What is oxygen delivery? Classify oxygen delivery systems. Discuss the role of ventimask in oxygen therapy. 2+4+4
5. What are the recommendations for neuraxial anaesthesia in a patient on anticoagulant therapy? 10
6. Describe the boundaries of epidural space. Discuss five common complications of epidural block. 5+5
7. Why is it important to measure the depth of anaesthesia? Briefly describe the methods used. 3+7
8. What is Monitored Anaesthesia Care? Describe minimum monitoring standards for a patient undergoing Monitored Anaesthesia Care. 3+7
9. Describe briefly the difficult airway algorithm. How will you perform awake intubation in an adult with restricted mouth opening? 4+6
10. How will you evaluate a 50 years old male patient with history of ischemic heart disease presenting for major abdominal surgery? 10

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**PAPER- III**

**Time : 3 hours**  
**Max. Marks : 100**

**ANS/D/11/1/III**

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

1. Discuss the anaesthetic considerations for excision of a mass in the posterior cranial fossa in a 20 year old patient. 10
2. Describe the clinical features of hypothyroidism. Discuss the anaesthetic considerations in a hypothyroid patient scheduled for upper abdominal surgery. 5+5
3. Discuss clinical manifestations and management of acute anaphylaxis. 5+5
4. Discuss the pre-operative evaluation and anesthetic management of a 2 years old child scheduled for removal of foreign body in bronchus. 4+6
5. Describe pathophysiology, clinical manifestations and anaesthetic management of Congenital Diaphragmatic Hernia in a neonate. 2+2+6
6. Discuss the pre-operative evaluation and anaesthetic management of an 80 years old patient with cardiac pacemaker for TURP. 5+5
7. Enumerate the causes, clinical manifestations and management of hyperkalemia. 3+3+4
8. Describe briefly pathophysiology, signs and symptoms, diagnosis and treatment of carbon monoxide poisoning. 2+2+2+4
9. Enumerate the causes and differential diagnosis of post extubation laryngospasm. How will you manage it? 3+3+4
10. What is Mixed Venous Oxygen Saturation and its importance in critical care set up? How is it measured? 2+5+3

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**PAPER- IV**

**Time : 3 hours**  
**Max. Marks : 100**

**ANS/D/11/1/IV**

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

1. Describe the anatomy of celiac plexus. Discuss the indications and methods of celiac plexus block. 4+2+4
2. Discuss the mechanism of action, pharmacodynamics and pharmacokinetics of propofol. 2+4+4
3. Describe briefly the safety features in modern anaesthesia machines. Discuss various features that prevent the delivery of hypoxic gas mixtures. 6+4
4. Describe the anatomy of Internal Jugular Vein (IJV) with the help of a diagram. Discuss any one approach for IJV cannulation and its complications. 5+5
5. What is Syndrome of Inappropriate ADH secretion (SIADH)? Describe the clinical features and management of SIADH. 2+4+4
6. Enumerate the functions of liver. Discuss the anaesthetic implications in a patient with cirrhosis and ascites. 4+6
7. What is PEEP? How does it improve arterial pO<sub>2</sub>? What are its disadvantages? 2+4+4
8. Describe the oxygen haemoglobin dissociation curve. How does it differ from the carbon dioxide dissociation curve? 5+5
9. Describe the physiology of circulation during closed chest compressions. Discuss the algorithm for basic life support. 4+6
10. Define and classify shock. Discuss the recent guidelines for the management of septic shock. 2+3+5

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