

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 pO₂? 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
