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

1. How will you evaluate a three year old child with systolic murmur scheduled for surgery? Briefly discuss the anaesthetic implications.

2. Describe briefly the intra-operative considerations for bariatric surgery?

3. Describe the differential diagnosis of intra-operative bronchospasm. Write down its management.

4. Draw a labeled diagram of labor pain pathway. Describe method, advantages and disadvantages of preferred technique of labor analgesia.

5. What are the factors that predispose trauma patients to increased anaesthetic risks? Briefly mention their management.

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

7. What are the predictors of cardiac risk in cardiac patients undergoing non-cardiac surgery? Describe briefly the anaesthetic consideration in a patient with coronary artery disease with ejection fraction of 40% for laparoscopic cholecystectomy.

8. Describe the preoperative evaluation, anaesthetic management and intra-operative monitoring of a patient scheduled for carotid endarterectomy.

9. Describe briefly the diagnosis, pathophysiology and treatment of hepato-renal-syndrome in a case of advanced liver cirrhosis.

10. Discuss the role of anesthesiologist in organ donation.

******

POSSESSION / USE OF CELL PHONES OR ANY SUCH ELECTRONIC GADGETS IS NOT PERMITTED INSIDE THE EXAMINATION HALL.
1. What are the indications for renal replacement therapy? Describe its role in multiple organ dysfunction syndrome. 4+6

2. Describe the etiology, clinical features and treatment of malignant hyperthermia. 3+3+4

3. What are the anaesthetic concerns in the management of a patient with myasthenia gravis scheduled for thorascopic thymectomy. 10

4. What are the indications for intracranial pressure (ICP) monitoring in patients with head injury? Describe the ICU management strategies of a patient with severe head injury? 4+6

5. How will you diagnose and manage a case of venous air embolism during spine surgery? 4+6

6. Enumerate the agents implicated in allergic reactions during anaesthesia. How would you manage a patient with anaphylaxis during anaesthesia? 4+6

7. Write down the algorithm for resuscitation of a newborn. 10

8. What is anion gap? Describe the causes and management of metabolic acidosis from low cardiac output. 3+7

9. Write an algorithm for the management of early hemorrhagic shock. What are the goals in early resuscitation during active bleeding? 5+5

10. Describe the commonly encountered problems following cardio-pulmonary bypass in the post bypass period. 10
ANAESTHESIOLOGY

PAPER – III

Time : 3 hours
Max. Marks : 100

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

1. What are the clinical features of organophosphorous poisoning? How will you manage a patient of organophosphorous poisoning in an ICU? 5+5

2. What are the ingredients of professional negligence? Write a note on “Informed Consent”? 4+6

3. What is IASP (International Association for Study of Pain) definition of pain? How do you classify pain? Briefly describe the interdisciplinary management of chronic pain. 1+2+7

4. An 8 years old child who underwent tonsillectomy 4 hours ago returns to the Operating Table with bleeding from tonsillar site. Describe preparation, preoperative assessment and anaesthetic management of this case. 4+4+2

5. What are the hazards and limitations of providing anaesthesia in the MRI suite? Describe the anaesthetic management of a 6 months old child with hydrocephalus scheduled for MRI. 5+5

6. What are the causes of intra-operative hypotension during total hip replacement? Outline the treatment strategies. 3+7

7. Enumerate the major concerns for anaesthesiologist in hypertrophic pyloric stenosis in a newborn. Write down the anaesthetic management of such a case. 4+6

8. Enumerate age-related changes in cardiovascular, pulmonary, nervous and renal systems in geriatric patient which can affect anaesthetic management. How do the changes in renal functions affect anaesthetic management? 7+3

9. Describe the preoperative evaluation and anaesthetic management of a four year old child with perforating eye injury scheduled for repair under general anaesthesia. 4+6

10. What is Chronic Obstructive Pulmonary Disease (COPD)? How will you manage oxygenation and pain in post-operative period of a case of COPD undergoing upper abdominal surgery? 4+(3+3)

POSSESSION / USE OF CELL PHONES OR ANY SUCH ELECTRONIC GADGETS IS NOT PERMITTED INSIDE THE EXAMINATION HALL.
1. Briefly discuss the management of a patient with severe sepsis as per “Surviving Sepsis Guidelines”.  

2. What is the significance of autonomic neuropathy in diabetes mellitus? How can it be assessed?  

3. Describe the innervation of larynx and the palsies following nerve injury with the help of diagram(s).  

4. What are the factors leading to arterial hypoxaemia in the Post Anaesthesia Care Unit? Discuss the differential diagnosis.  

5. Describe the causes and management of “Acute Dilutional Hyponatremia” in the immediate postoperative period.  

6. Describe the algorithm of the evaluation and initial therapy of a patient with suspected peri-operative coagulopathy.  

7. What is relative and absolute humidity? What are active and passive humidifiers? What are their advantages and disadvantages?  

8. What is scavenging in OT? What are the five basic parts of a scavenging system? What are the hazards of a scavenging system?  

9. Describe the mechanism by which Intra-Aortic Balloon Pump (IABP) augments coronary perfusion. What are the indications and contra-indications for the use of IABP?  

10. What is Hospice? When should you begin hospice care? How does hospice serve patients and families?