

**KALOJI NARAYANA RAO UNIVERSITY OF HEALTH SCIENCES
WARANGAL, TELANGANA STATE – 506 002
POST DOCTORAL FELLOWSHIP EXAMINATIONS: DECEMBER 2025
PEDIATRIC ANESTHESIA
PAPER–II**

Time: 3 Hours.

Max Marks: 100

Note: Answer all questions with neat diagrams whenever necessary
All question carry equal marks.

Write essay on the following:

10 X 10 = 100

1. Define apparatus dead space. What is the effect of increased dead space in small children? How can this effect be prevented or mitigated?
2. Describe the physiological changes during paediatric laparoscopic surgery and their anaesthetic implications.
3. What is MAC of a volatile anaesthetic agent? Compare and contrast the properties of halothane, sevoflurane and desflurane. Which of these is preferred in paediatric anaesthesia.
4. What is para-oxygenation? Explain how it affects the conduct of anaesthesia. In what situations is it useful.
5. A 3-week male baby weighing 3.2 kg presents with projectile vomiting immediately after feeding for 4 days. A 1 cm mass is felt in the right hypochondrium. The child looks dehydrated. Discuss the possible diagnosis, assessment and pre-anaesthetic optimisation of this baby. What metabolic derangements are likely and what fluid should be used for correction.
6. Classify local anaesthetic agents. What is the difference between Ropivacaine and Bupivacaine. Discuss how local anaesthesia toxicity may present in 4-year-old child being given a caudal injection under general anaesthesia with an LMA.
7. Discuss the algorithm for management of the difficult paediatric airway. List the equipment currently available for managing this situation.
8. Describe the pharmacology of Remifentanyl. Discuss its uses in paediatric anaesthesia.
9. What are the components VATER (or VACTERL) syndrome? Discuss the anaesthetic concerns in surgery for trachea-oesophageal fistula.
10. How is the effect of neuromuscular blockers monitored? Compare and contrast the effects of neostigmine and sugammadex.