
2. Define disseminated intravascular coagulation (DIC). What are the common conditions that are associated with DIC? How is the diagnosis of DIC made on laboratory tests?

3. Describe the endocrine and metabolic responses to surgery in a neonate? What are the effects of surgery on glucose metabolism?

4. Describe the embryology of the branchial arches? Briefly discuss the defects of the second branchial cleft?

5. Enumerate the complications of parenteral nutrition (PN)? Describe strategies to reduce PN-related cholestasis?

6. What is Polymerase Chain Reaction? What are their clinical applications in pediatric surgery?

7. Describe the mechanism of heat loss in a surgical neonate? What are the complications of hypothermia in neonates?

8. What is patient controlled analgesia (PCA)? Describe its use in children citing its advantages and disadvantages?


10. What are the maternal serum screening tests for trisomy-21? List the ultrasound markers for trisomy-21?
1. Describe the evolution of empyema thoracis in children? Outline the investigations required to plan treatment? What are the treatment options in a child with empyema thoracis? 4+2+4

2. What are the indications for esophageal substitution in children? Describe the advantages and disadvantages of commonly performed esophageal substitution procedures? 3+7

3. Describe the clinical presentation, pathology and management of foregut duplication cysts. 3+3+4

4. Classify cystic lesions of the lung. What are the principles of management of these lesions? 4+6

5. Briefly describe the embryogenesis of cystic hygroma. What are the various treatment options of these lesions, giving advantages and disadvantage of each? 3+7

6. Enumerate the treatment option in a child with congenital hydrocephalus. What are the complications of ventriculo-peritoneal shunts? 4+6

7. Enumerate the indications for antegrade colonic enema (ACE) procedure. What are the principles of this operation? What post-operative care is required in these children? 3+4+3

8. Describe the clinical presentation, investigations and principles of treatment of ovarian tumors in pre-pubertal girls? 2+4+4

9. What are the common causes of portal hypertension in children? What is the treatment of acute variceal hemorrhage? Enumerate the types of porto-systemic shunts. 2+5+3

10. Describe the diagnostic work up in an infant suspected to have extrahepatic biliary atresia? What are the factors that influence outcomes after hepato-portoenterostomy? 5+5

POSESSION / USE OF CELL PHONES OR ANY SUCH ELECTRONIC GADGETS IS NOT PERMITTED INSIDE THE EXAMINATION HALL.
1. Describe the common urodynamic findings in a child with neuropathic bladder after spina bifida repair? What are the principles of management in these children? 4+6

2. Define tumor lysis syndrome (TLS). What are the metabolic changes in TLS? What is the management of TLS? 3+4+3

3. Describe the treatment options in a neonate with posterior urethral valves giving advantages and disadvantages of each. What are the factors that determine prognosis in these babies? 5+5

4. Classify ureteric duplication anomalies? How are these anomalies treated? 5+5

5. What are the types of stem cell transplantation? What are the advantages and disadvantages of umbilical cord blood as the source of stem cell transplantation? 5+5

6. Define the criteria for advising surgery in unilateral pelvi-ureteric junction obstruction? What are the limitations of various imaging modalities in determining significant obstruction? 6+4

7. What are the causes of impalpable testis? Describe the evaluation and treatment of a child with bilateral impalpable testes. 3+7

8. Enumerate the newer surgical options for treatment of vesico-ureteric reflux. Compare and contrast these treatments with the standard ureteric reimplantation technique? 5+5


10. Write the NWTS-staging for Wilm’s tumor? Describe the principles of management of bilateral Wilm’s tumor? 5+5

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