Important instructions:

- Attempt all questions in order.
- Each question carries 10 marks.
- Read the question carefully and answer to the point neatly and legibly.
- Do not leave any blank pages between two answers.
- Indicate the question number correctly for the answer in the margin space.
- Answer all the parts of a single question together.
- Start the answer to a question on a fresh page or leave adequate space between two answers.
- Draw table/diagrams/flowcharts wherever appropriate.

1. Enumerate the radionuclide scans utilized in children. Discuss indications, assessment criteria and functional analysis of interpretation of renal scans in children. 3+7

2. Define surgical site infection (SSI). Discuss the etiopathogenesis of SSI. Elaborate the assessment criteria and management of SSI. 1+3+6

3. Enumerate the criteria for mechanical ventilation in neonates and children. Discuss techniques, advantages and complications of high frequency ventilation. 4+2+2+2

4. Describe with diagrams the surgical anatomy of ano-rectum pertinent to fecal continence. Discuss the various methods (scoring systems) for assessment of fecal incontinence. 5+5

5. Describe normal CSF pathways and normal anatomy of ventricular system with diagram(s). Discuss pathophysiology of hydrocephalus. 5+5

6. Discuss the complications of transfusion of blood and blood products 10

7. Describe the pathways of steroid hormone biosynthesis from cholesterol with algorithmic representation. Discuss in short the clinical anomalies which occur due to its abnormal biosynthesis. 5+5

8. Discuss the applications of upper GI endoscopy in children. Describe the indications, technique, advantages and disadvantages of upper GI endoscopy. 4+6

9. Define shock. Describe the parameters for assessment of a 9 month old infant presenting with shock. 1+9

10. What are the various components of APGAR score and how is it scored? Enumerate the various conditions in the newborn demanding resuscitation alert. 5+5