

PAEDIATRIC INTENSIVE CARE

THEORY PAPER

Time : 3 hours

Max. Marks : 100

Attempt all questions in order.

Each question carries 10 marks.

Write short notes on:

1. Discuss significance of: 5+5
 - a) Biomarkers in sepsis
 - b) Critical illness neuropathy & myopathy
2. a) Management of cardiac arrhythmia in post-operative cardiac surgery child. 5+5
b) Discuss safety and efficacy of anticoagulant therapy in critically sick child.
3. Management of: 5+5
 - a) Ten-year-old child with sepsis, AKI, hyponatremia (Na^+ 170 mEq/L) and acidosis (pH 7.10)
 - b) Dialysis disequilibrium syndrome.
4. a) Nested case control study design. 5+5
b) Pathophysiology of acute liver failure and hepatic encephalopathy.
5. a) Methods to estimate energy requirement in a critically ill child. 5+5
Discuss merits and demerits.
b) Critical care ultrasonography in acute respiratory failure.
6. Non-invasive monitoring of hemodynamic status in critically sick children. 10
7. Discuss protocol for sedation in PICU. Define levels of procedural sedation and adverse effects associated with procedural sedation. 4+(3+3)
8. a) Transfusion and Anemia Expertise Initiative (TAXI) 5+5
recommendations for critically sick children.
b) Quality indicators in PICU.
9. a) Diagnosis and treatment of Multisystem Inflammatory Syndrome. 4+3+3
b) Awake proning for Covid and non-Covid patients.
c) HFNC vs CPAP in Covid patients.
10. Define and discuss management of: 5+5
 - a) Super refractory status epilepticus.
 - b) Methemoglobinemia in a G6PD deficient child.
