

**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. 5+5
  - a) Management of cardiac arrhythmia in post-operative cardiac surgery child.
  - 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 ( $\text{Na}^+$  170 mEq/L) and acidosis (pH 7.10)
  - b) Dialysis disequilibrium syndrome.
4. 5+5
  - a) Nested case control study design.
  - b) Pathophysiology of acute liver failure and hepatic encephalopathy.
5. 5+5
  - a) Methods to estimate energy requirement in a critically ill child. 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. 5+5
  - a) Transfusion and Anemia Expertise Initiative (TAXI) recommendations for critically sick children.
  - b) Quality indicators in PICU.
9. 4+3+3
  - a) Diagnosis and treatment of Multisystem Inflammatory Syndrome.
  - 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.

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