

**Neonatology Chapter of Indian Academy of Pediatrics
Fellowship Examination – 2011**

Paper – I

Maximum Marks – 100 Answer any Five out of Seven Qs Each Question carries 20 marks

Q.1. Two- day old term neonate is brought to you with seizures. Discuss the approach and management in detail.

Q.2. Detail the technicalities of establishing a level II (Ten-bedded) NICU in your area of practice?

Q.3. Discuss various traditional practices in newborn care and their implications on health.

Q.4. Discuss the Normal glucose metabolism in newborns. Enlist all likely causes of hypoglycemia in newborn. Elaborate management options in newborn infant with refractory hypoglycemia.

Q.5. Enumerate likely problems of a preterm infant born before 30 weeks of gestation. Discuss in detail treatment strategies of these medical problems in these infants.

Q.6. Give Short answers (Attempt **any two**) (10 marks for each answer)

- 1) Large-for-date baby
- 2) Medicolegal concerns in NICU
- 3) Baby friendly hospital initiative

Q.7. Write brief answers (Attempt **any four**) (5 marks for each answer)

- 1) Newer Synthetic Surfactants
- 2) Newer therapies for ROP
- 3) Newborn Screening
- 4) Flow chart for newborn with ambiguous genitalia
- 5) Number needed to treat (NTT)

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Paper – II

Maximum Marks – 100

Answer any Five out of Seven Qs

Each Question carries 20 marks

Q.1. A 29 week, preterm infant weighing 1100 grams had problems of prematurity and severe RDS. There was history of premature rupture of membrane and leaking PV for 46 hours prior to delivery. Infant had received 3 doses of natural surfactant in first 2 days of life. This infant's condition deteriorated on day -3 of life. Describe your diagnostic approach and treatment plan in this child.

Q.2. A full term newborn infant with birth weight of 3 kg is referred to your hospital at 30 hours of life with total serum bilirubin level of 24 mg/dl. Describe the diagnostic and therapeutic approach in this child. Discuss novel therapies in treatment of hyperbilirubinemia.

Q.3. A 36 week, near term infant weighing 2.3 kg is admitted on day 4 of life with sepsis. On evaluation infant was found to have features of shock. Discuss in detail likely causes and various treatment options in treatment of shock in this child.

Q.4. A 40⁺⁵ week, male, AGA infant weighing 3.18 kg, is born to a 24 yr old primi gravida mother with generally uneventful antenatal course. Emergency LSCS was performed for non-reassuring fetal status. At delivery, meconium staining of amniotic fluid was noted. Infant did not require any resuscitation at birth. Baby was noticed to have respiratory distress soon after birth and was therefore shifted to NICU. Infant's chest x-ray clinical findings consistent with MAS. Infant was initially stable in nasal prong oxygen of 1 liter/min for initial 24 hours. Infant's respiratory distress worsened at 24 hours and infant needed intubation and mechanical ventilation. Infant could be stabilized on following ventilatory settings: PIP 25, PEEP 5, RR 60, 70% FIO₂. A 2-D Echo performed at this time was suggestive of PPHN.

- What is PPHN? Discuss classification, causes and risk factors for PPHN? Discuss specific echocardiographic findings utilized to confirm the diagnosis of PPHN?
- Elaborate in detail general and specific treatment plan of this child with PPHN.

Q.5. A full term newborn delivered by normal vaginal delivery presents with acute onset of cyanosis on day-3 of life. Discuss clinical assessment approach, investigation and treatment plan in this child.

Q.6. A 41 weeks, 2.6 kg, newborn infant is admitted with unexplained multifocal and refractory seizures on day-2 of life. Discuss diagnostic and treatment approach in this child.

Q. 7. A 3-week old LBW presents with anemia. Discuss the causes, evaluation and management.