



IAP Neonatology Chapter

IAP Neonatology Fellowship Exam 2021

Theory Paper 2

Time: 3hours

Total Marks–100

- Attempt all questions.
- Write in legible handwriting.
- Draw appropriate figures and flow diagrams
- Quote evidence / studies wherever required.

Question 1: A 28 week preterm newborn develops new onset apnea and hypothermia on 12th day of life on full feeds. There is a mass palpable in the right iliac fossa. (20 marks)

- A. What is the most probable diagnosis? How do you confirm it? (5)
- B. Describe the pathogenesis of this condition including recent advances (5)
- C. What is the medical and surgical outline for management? (5)
- D. What are the preventive measures you could have taken to prevent this condition? (5)

Question 2: A 30-week neonate, 1100-gram birth weight was born via vaginal route, had an APGAR score of 7, 8 at 1 and 5 minutes, respectively. Baby was hemodynamically stable, needed CPAP of 5 cm of H₂O. He was started on partial feeds and partial fluids at 2 hours of postnatal life. (20 marks)

- A. Define early skin to skin contact. When will you start Kangaroo care in this baby? (5)
- B. What are the various components of Kangaroo mother care? (5)
- C. What is continuous KMC? Discuss few anticipated difficulties of implementing the same, and suggested solutions to the same. (5)
- D. What are the overall short term and long-term benefits of Kangaroo care? (5)



Question 3: A term 3.4 kg newborn has been referred to your center with hypoglycemia requiring IV therapy on day 10 of life. (20 marks)

- A. Describe your approach to establish a diagnosis (7)
- B. How do you manage persistent hypoglycemia in the newborn? (3)
- C. What long term complications do you anticipate and how do you propose to screen for those problems? (5)
- D. Discuss the controversy in definition of hypoglycemia in newborn (5)

Question 4: A full term 3.2 kg baby boy was born to a mother with hypothyroidism, on treatment with thyroid hormone. Her TFT during pregnancy are well within normal. The baby was feeding well, passing stools every day. His TFT done on D3 showed TSH of 35 mU/L with FT4 1.20 ng/dl. (20 marks)

- A. Describe fetal thyroid hormone production (3)
- B. Describe in brief maternal thyroid influence on fetal thyroid function (3)
- C. Discuss etiology of congenital hypothyroidism (4)
- D. Describe clinical features and diagnostic evaluation (5)
- E. Discuss management and follow up (5)

Question 5: A 30-week preterm infant is admitted in NICU with moderate RDS. He was managed with early CPAP and surfactant. He was off O₂ on D5. However, he developed repeated episodes of apnoea on D5. (20 marks)

- A. Describe control of breathing in neonates (5)
- B. Discuss pathophysiology of apnea of prematurity (5)
- C. Discuss management of apnea of prematurity (5)
- D. Describe CAP trial briefly (5)