

NNF FELLOWSHIP EXAMINATION THEORY PAPER I

APRIL 2023

Max marks 100

- Attempt all questions in order.
 - Each question carries 10 marks.
 - Read the question carefully.
 - 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.
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1. A term baby is admitted at 18 hours of life with an unconjugated bilirubin level of 20 mg/dl.
 - a) What are the likely causes? [3]
 - b) What is 'crash cart approach' of management of neonatal jaundice? [5]
 - c) What is BIND score? [2]

 2. A term 1.6 kg infant, with severe IUGR has been on IV fluids since birth due to persistently low sugars. On day 5 of life, the infant is on IV 12.5% dextrose at 150ml/kg/day and still hypoglycemic.
 - a) What is refractory hypoglycemia? Enumerate the differential diagnosis? [1+3]
 - b) Write the investigations and management of refractory hypoglycemia? [4]
 - c) What are the long term effects of neonatal hypoglycemia? [2]

3. A full-term baby 3.1 kg was delivered by LSCS because of prolonged labour. The neonate required prolonged resuscitation at birth including intubation and chest compression. Discuss:
 - a) Criteria for defining perinatal asphyxia? [2]
 - b) What are the criteria for therapeutic hypothermia treatment and its contraindications? [3+2]
 - c) How will you predict the neurodevelopmental outcomes in neonates with HIE? [3]
4. A 26-week infant with birth weight of 750grams admitted to your NICU is now 2.5 months old. His present weight is 2.2kg and his corrected gestation is 38 weeks. However, the infant is still needing CPAP support with PEEP 6cmH₂O and FiO₂ 30% to maintain oxygen saturation.
 - a) What is new BPD [2]
 - b) write the recent classification of BPD [3]
 - c) Describe strategies to prevent BPD. [5]
5. Write short answers [answer any 2 questions, 5 X 2]
 - a) Colostrum-oral immune therapy
 - b) List commonly used screening and diagnostic tests for assessment of neurodevelopment in high risk newborn follow up?
 - c) MusQan initiative
 - d) ROC curve
6. A 3-week-old preterm neonate is noted to have a hemoglobin value of 6 mg / dl.
 - a. List the investigations to be done [3]
 - b. Explain the thresholds for PRBC transfusion in neonates [5]
 - c. What are the special considerations to be followed regarding PRBC transfusion in a preterm baby? [2]

7. The Neonatologist is called to attend the delivery of a 28 week preterm baby.
 - a. What are the steps to be done for thermoregulation of this baby after birth? [3]
 - b. What is evidence supporting the need for delayed cord clamping? [2]
 - c. Enumerate the appropriate respiratory care aspects in labor room [5]

8. A preterm neonate is planned for Retinopathy of prematurity (ROP) screening prior to discharge
 - a. Which neonates should undergo ROP screening as per Govt of India guidelines and when? [4]
 - b. What is the procedure to be done for preparation of the baby prior to ROP screening? [2]
 - c. What are the indications and treatment modalities for ROP? [4]

9. An obstetrician wants to monitor the fetal well-being of a high risk pregnancy in the labour room
 - a. What are the components of a BPP? [4]
 - b. How will you interpret a Non stress test (NST) result? [3]
 - c. Write a short note on Umbilical artery doppler abnormalities. [3]

10. A 27 week preterm neonate is started on enteral feeds with mother's own milk.
 - a. What is Minimal enteral Nutrition and what are its benefits? [3]
 - b. What is the role of fortification of Human Milk and risks associated with human milk fortifier use [3+2]
 - c. Schedule and dose of iron supplementation [2]