

**NATIONAL NEONATOLOGY FORUM**  
**NNF FELLOWSHIP EXIT EXAMINATION**

**THEORY PAPER -1**

**OCTOBER-2021**  
**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.
1. A 5- day old term born baby has been admitted with a bilirubin value of 24 mg / dL from the OPD. Mother reports that baby is sucking at breast very frequently.
    - a. What is the immediate management of this baby? (3)
    - b. How can phototherapy be optimized? (2)
    - c. List the blood component specifications for safe exchange transfusion. (2)
    - d. What are the possible reasons for severe hyperbilirubinemia in this baby? (3)
  2. A 38-weeks pregnant woman presents with decreased fetal movements for a day; the scans show category III fetal heart tracing.
    - a. How will you prepare for resuscitation? (3)
    - b. What will be the NICU care on day 1, for the baby, if he required extensive resuscitation including intubation and chest compressions. (4)
    - c. Describe the follow up plan for the baby for the 1<sup>st</sup> year of life (3)
  3. A preterm baby born at 28 weeks gestation is oxygen dependent at 37 weeks corrected age; and is managed on HFNC with 30 % oxygen at 4 L / minutes flow rate.
    - a. Discuss strategies to prevent this condition. (5)
    - b. The baby's S. Phosphorus levels are 2.6 mg / dL and alkaline phosphatase 1100 IU/ L; how will you manage? (5)
  4. A preterm 26 weeks old neonate born by spontaneous vaginal delivery with birth weight of 780gm. Baby intubated at birth in view of poor respiratory effort and received 1 dose of surfactant at 1 hour of life. At 6 hours of life baby developed sudden pallor and perfusion abnormalities. NSG showed Left grade III IVH and Right Grade II IVH.

- a. Enumerate strategies to Prevent IVH. (3)
  - b. Short term and long-term outcomes based on grading of IVH. (4)
  - c. Difference between IVH and PVL. (3)
5. A small hospital 25 kilometres away requests for transfer of a newly born preterm baby (30 weeks, 1.2 kg)
  - a. Prepare an equipment check-list for your team specific to this transfer (2)
  - b. What are the potential harms to the baby, if transfer is made by a nurse with no prior experience in neonatal transfer? (3)
  - c. What are the important components of communication to the family before you plan to shift the baby to your care? (2)
  - d. List the important determinants of intact development outcome that must be noted from the antenatal and birth records of this baby. (3)
6. You wish to write the protocol for parenteral nutrition (PN) therapy for your unit
  - a. Who should be recipients of PN? (2)
  - b. What should be the infrastructure / equipment requirements to deliver PN at high quality? (3)
  - c. Nursing aspects of care, to prevent blood stream infection (3)
  - d. What should be monitored, while the baby is on aggressive PN? (2)
7.
  - a. Define Extrauterine growth retardation and list various factors responsible for it. (3)
  - b. Which growth charts are available to monitor growth of preterm in NICU and which one you will prefer and why? (3)
  - c. How will you prevent Extrauterine growth retardation? (4)
8. Obstetrician refers a 29- weeks pregnant woman with scan showing increased renal pelvis diameter of 15 mm on one side and 9 mm on the other
  - a. What are the components of UTD classification that predict poor outcomes? (3)
  - b. Which babies should get uro-prophylaxis, give details of medications. (4)
  - c. Write a short note on DTPA scan. (3)
9. Write short answers
  - a. ACTION – I trial. (5)
  - b. Feeding strategies in neonates with COVID-19 positive mother. (5)
10. Short notes on
  - a. Antibiotic stewardship in NICU. (5)
  - b. NNT (Number needed to treat). (5)