

**POST DOCTORAL FELLOWSHIP – NEONATOLOGY, EXAMINATION, FEBRUARY - 2023**  
(One year Programme)

**PAPER ONE**  
**BASIC MEDICAL SCIENCES**

**[Time allotted: Three hours]**

**[Max Marks: 100]**

**Note:** Attempt all questions and each question carries **10** marks  
Illustrate with suitable diagrams and flowcharts wherever possible.

- Q. 1.** Write short note on pathophysiology and management of apnea of prematurity.
- Q. 2.** Describe stages of lung development and its implications in clinical practice.
- Q. 3.** Describe technical considerations for buying a mechanical ventilator.
- Q. 4.** Discuss assessment and management of intrauterine growth restriction.
- Q. 5.** Describe auditory pathway and discuss physiological basis of hearing tests.
- Q. 6.** Discuss the various methods of fetal surveillance in antenatal period.
- Q. 7.** Discuss laboratory tests for monitoring renal functions in neonates.
- Q. 8.** Discuss assessment of pain in neonates. How will you manage pain in a ventilated newborn?
- Q. 9.** Write short note on MOM (mother`s own milk).
- Q. 10.** Describe assessment of placenta and its significance to neonatal health.

---

X

**POST DOCTORAL FELLOWSHIP – NEONATOLOGY, EXAMINATION, FEBRUARY - 2023**  
(One year Programme)

**PAPER TWO**  
**CLINICAL SPECIALITY**

**[Time allotted: Four hours]**

**[Max Marks: 200]**

**Note:** Attempt all questions and each question carries **20** marks  
Illustrate with suitable diagrams and flowcharts wherever possible.

- Q. 1.** Discuss pathogenesis of bronchopulmonary dysplasia? Write approach for prevention and management of BPD in newborns.
- Q. 2.** Write short note on:
- a.** Approach to hypernatremia management in neonates
  - b.** iKMC
- Q. 3.** Discuss pathophysiology of Shock & outline principles of its management & prevention.
- Q. 4.** Describe assessment and management of feed intolerance in preterm neonates.
- Q. 5.** Discuss management approach to hypoxia in preterm neonates.
- Q. 6.** Discuss pathophysiology and current neuroprotective strategies in hypoxic ischemic encephalopathy in neonates.
- Q. 7.** Discuss advantages and disadvantages of different growth charts used for monitoring postnatal preterm growth.
- Q. 8.** Discuss management and follow up of neonate with antenatally detected hydronephrosis.
- Q. 9.** Describe management of neonatal fungal infections in NICU and strategies for prevention.
- Q. 10.** Describe various risk factors predisposing a neonate to hypoglycemia. Discuss management of refractory hypoglycemia.

---

X

**POST DOCTORAL FELLOWSHIP – NEONATOLOGY, EXAMINATION, FEBRUARY - 2023**  
(One year Programme)

**PAPER THREE**

**SOCIAL, PUBLIC HEALTH, RECENT ADVANCES**

**[Time allotted: Three hours]**

**[Max Marks: 100]**

**Note:** Attempt all questions and each question carries **10** marks  
Illustrate with suitable diagrams and flowcharts wherever possible.

- Q. 1.** Write short note on antimicrobial stewardship in NICU.
- Q. 2.** Discuss in brief: Big Data in Neonatology.
- Q. 3.** Write short on Bevacizumab in management of ROP
- Q. 4.** Discuss MusQan initiative.
- Q. 5.** Discuss ethical principles in management of a neonate born at 24 weeks gestation.
- Q. 6.** Discuss follow up of a high-risk neonate discharged from NICU.
- Q. 7.** Write short note on Caffeine therapy in neonates.
- Q. 8.** Describe in brief NIRS as a monitoring tool for neonates.
- Q. 9.** What is Forest plot & its application?
- Q. 10.** Discuss in brief components of Home-based neonatal care (HBNC) in community.

---

X

---