

NEONATOLOGY

PAPER-I

Time: 3 hours
Max. Marks: 100

NEONAT/D/19/19/I

Important Instructions:

- Attempt all questions in order.
- Each question carries 10 marks.
- Read the question carefully and 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.
- Draw table/diagrams/flowcharts wherever appropriate.

Write short notes on:

1. a) Describe fetal blood circulation and the changes that occur at birth. 5+5
b) Describe resuscitation with intact placental circulation.
2. a) Describe the development of brain and spinal cord. 5+5
b) Describe the types of spinal dysraphism and their prevention.
3. a) Discuss the pathophysiology of perinatal asphyxia. 5+5
b) Enlist the important neuroprotective strategies and their mechanism of action.
4. Describe the pathophysiology and management of necrotizing enterocolitis. 5+5
5. a) Allocation concealment. 2+3+5
b) Number needed to treat (NNT).
c) Receiver Operating Characteristic (ROC) curve.
6. a) Draw a CONSORT flow chart and describe the steps in a Randomized Controlled Trial. 5+5
b) Describe a Forest Plot.
7. a) Bioactive factors in human milk. 5+5
b) Human milk fortification – types and challenges.
8. a) Describe the physiology of calcium homeostasis. 5+5
b) Discuss the etiology and management of hypocalcemia in a newborn.
9. Describe the Antenatal Doppler Indices used in assessment of fetal wellbeing and discuss their clinical applications. 5+5
10. a) Congenital rubella syndrome - clinical features and prevention. 5+5
b) Neonatal tetanus - clinical features and management.
