

NEONATOLOGY
PAPER-I

Time: 3 hours

NEONAT/J/20/19/I

Max. Marks:100

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) Mechanisms of antimicrobial drug resistance. 5+5
b) Investigating a sepsis outbreak in NICU.
2. a) Discuss pathogenesis of septic shock. 4+6
b) Time sensitive goal directed stepwise management of septic shock.
3. a) Describe the pathophysiology of hydrops fetalis. 5+5
b) Discuss the indications and complications of intrauterine transfusion.
4. a) Describe stages in the development of the lung. 5+5
b) Describe the embryologic basis of any two anomalies due to mal-development during any two stages.
5. a) Discuss criteria for diagnosis for congenital hypothyroidism. 3+7
b) Management algorithm for congenital hypothyroidism.
6. a) Tabulate severity classification of ROP. 4+3+3
b) Discuss:
I. Indications of various treatment modalities.
II. Treatment of threshold ROP.
7. A 5-day-old term baby, birth weight 2.9 kg, presents with current weight of 2.0 kg with a serum sodium of 168 mEq/l. Discuss fluid management of this baby for the next 48 hours. 10
8. a) Nested case control study. 5+5
b) Receiver Operating Characteristic (ROC) curves.
9. a) Informed consent and assent. 5+5
b) Phases of clinical trials.
10. a) GRADE. 3+3+2+2
b) Confidence interval.
c) Advantages of randomization.
d) Likelihood Ratio.
