

D.M. – NEONATOLOGY

**Paper I – APPLIED BASIC SCIENCES AS APPLIED TO
NEONATOLOGY AND PERINATOLOGY; RESEARCH METHODS**

Q.P. Code: 161451

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Discuss maintenance of normal acid base balance. Describe in detail the management of metabolic acidosis in a neonate.
2. Describe in detail the various stages of development of lung. Describe one developmental anomaly/ neonatal morbidity occurring in any three stages.

II. Write notes on:

(10 x 7 = 70)

1. Draw a 2 X 2 table and describe how to calculate sensitivity, specificity, positive predictive value and negative predictive value for a diagnostic test.
2. C-reactive protein and its clinical utility in newborn care.
3. Advantages and disadvantages of single centre versus multi centre RCT's.
4. Bilirubin metabolism and physiological jaundice.
5. Compliance and resistance.
6. Classification of hypothermia in newborn. Management of temperature in a preterm born at 26 weeks.
7. Iron metabolism in fetus and newborn. Briefly describe anemia of prematurity.
8. Pathophysiology of metabolic bone disease.
9. Embryologic basis of multicystic dysplasia of kidney and posterior urethral valve.
10. Management of a Rh iso-immunised pregnant woman.
