

(LR 081)

NOVEMBER 2020
(AUGUST 2020 SESSION)

Sub. Code: 1451

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. Describe in detail the stages of development of heart. Elaborate on neonatal morbidity and management of transposition of great arteries.
2. Describe randomized control trial and discuss various randomization techniques and consort guidelines.

II. Write notes on:

(10 x 7 = 70)

1. Describe epigenetics and its application in antenatal and neonatal diseases.
2. Survival analysis and Kaplan Meier curve.
3. Describe placental development, endocrine and paracrine functions of placenta.
4. Surfactant synthesis and metabolism.
5. Control of breathing in neonate and pathogenesis of apnea of prematurity.
6. Describe the mechanism of action of pharmacological agents used in management of shock.
7. Discuss pharmacovigilance and strategies to prevent and report medication errors.
8. Cardio vascular changes at birth.
9. The uses and limitations of the biophysical profile of fetus.
10. Discuss the predictors of preterm labour.
