

**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

**[DM 0222]**

**FEBRUARY 2022**

**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 the development of Diaphragm. Delineate on neonatal morbidity and management of Congenital Diaphragmatic Hernia.
2. Describe Meta analysis and how to conduct and analyze the Meta analysis.

**II. Write notes on:**

**(10 x 7 = 70)**

1. Human Genome Project and its impact in Neonatology.
2. Correlation coefficient and Pearson product-moment correlation coefficient.
3. Host defenses in neonates against infection.
4. Describe the mechanism of action of pulmonary vasodilators used in management of PPHN.
5. Development of urinary system and detection of its disorders in antenatal period.
6. Fetal surgery.
7. Describe the Antenatal Doppler indices and their clinical applications.
8. Intrapartum fetal monitoring.
9. Describe fetal blood circulation and the changes that occur at birth.
10. Describe the causes and prevention of stillbirth.

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