

**VINAYAKA MISSION'S RESEARCH FOUNDATION  
(DEEMED TO BE UNIVERSITY), SALEM**

**M.D. DEGREE EXAMINATION - October 2018**

**PAEDIATRICS**

**PART I - PAPER I: APPLIED BASIC SCIENCES IN PAEDIATRICS**

Time: Three hours

Maximum: 100 marks

(Answer ALL questions)

Draw suitable diagrams wherever necessary

**I. ANATOMY :** (4 x 5 = 20)

1. Structure of nephron
2. Broncho-pulmonary segments
3. Development of brain
4. Lower motor neuron

**2. PHYSIOLOGY :** (4 x 5 = 20)

5. Control body fluid volume
6. Spirometry
7. Deep tendon reflex
8. Compliance, resistance and elastance in respiration

**3. BIOCHEMISTRY :** (3 x 5 = 15)

9. Lung surfactant
10. Regulation of body sodium
11. Liver function tests

**4. PHARMACOLOGY :** (3 x 5 = 15)

12. Antidotes available for poisoning
13. Insulin analogues
14. Beta lactam – Beta lactamase antibiotics

**5. PATHOLOGY :** (3 x 5 = 15)

15. FNAC
16. Lab diagnosis and staging of Hodgkins lymphoma
17. Histopathologic changes in severe malnutrition.

**6. MICROBIOLOGY :** (3 x 5 = 15)

18. Identification to the aetiologic organism in CSF in infections
19. Nosocomial pneumonia
20. Lab diagnosis of dengue infection.

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