

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

**[MD 1223]**

**DECEMBER 2023  
(OCTOBER 2023 EXAM SESSION)**

**Sub. Code: 2019**

**M.D. DEGREE EXAMINATION**

**BRANCH V – PHYSIOLOGY**

**PAPER II – CIRCULATION, RESPIRATION, ENVIRONMENTAL  
PHYSIOLOGY, COMPARATIVE PHYSIOLOGY AND EXCRETION**

*Q.P. Code: 202019*

**Time : Three Hours**

**Maximum : 100 Marks**

**I. Essay Questions:**

**(2 x 15 = 30)**

1. Define Blood Pressure and explain in detail about the Regulation of Blood Pressure.
2. Mechanism of concentration of Urine. Add a note on Nephrogenic Diabetes Insipidus.

**II. Short notes:**

**(10 x 5 = 50)**

1. Hypoxic hypoxia.
2. Law of Laplace.
3. Pacemaker Potential (P potential).
4. Renal tubular splay.
5. Vital Capacity.
6. Vector Cardiography.
7. Ventilation Perfusion ratio.
8. Reynolds number.
9. Respiratory membrane.
10. Divers palsy.

**III. Reasoning Out:**

**(4 x 5 = 20)**

1. Neurogenic bladder.
2. Effects of Negative G force.
3. Systolic hypertension is common in old age. Reason out.
4. High Vagal tone in athletes. Reason out.

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