

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:

(2 x 10 = 20)

1. How is heart rate regulated? What is sinus arrhythmia?
2. Describe in detail the formation of urine?

II. Short Questions:

(8 x 5 = 40)

1. Renal buffers.
2. Timed vital capacity.
3. Diuretics.
4. High pressure nervous syndrome.
5. Micropuncture technique.
6. Periodic breathing.
7. Baroreceptor resetting.
8. Cor pulmonale.

III. Reasoning Out:

(4 x 5 = 20)

1. Oxygen dissociation curve is sigmoid shaped.
2. During old age there is rise in blood pressure.
3. Micturition reflex is a self regenerative reflex.
4. Osteomalacia in chronic renal failure.

IV. Very Short Questions:

(10 x 2 = 20)

1. Triple response of Lewis.
2. Glomerulotubular balance.
3. Low resistance shock.
4. Physiological role of Nitric oxide (NO).
5. Self contained underwater breathing apparatus (SCUBA).
6. Free water clearance.
7. Physiological Dead space.
8. Positive end-expiratory pressure (PEEP).
9. Pink buffers and blue bloaters.
10. Breath holding.
