

**VINAYAKA MISSION'S RESEARCH FOUNDATION, SALEM.  
(Deemed to be University)**

**M.SC.(RENAL DIALYSIS TECHNOLOGY) DEGREE  
EXAMINATION February 2020  
First Year**

**PHYSIOLOGY**

Time: Three hours

Maximum: 100 marks

Answer **ALL** questions

**I. Write an Long essay on :**

**(2 x 20 = 40)**

1. Describe briefly the major steps involved in the formation of urine.
2. List the hormones secreted by the anterior and posterior lobe of the pituitary gland. Discuss how the pituitary gland is controlled by the hypothalamus. List the functions of growth hormone.

**II. Write short notes on :**

**(10 x 6 = 60)**

3. What percentage of the body is comprised of water? Classify the various body fluid compartments.
4. Micturition Reflex.
5. Renal function tests.
6. What is meant by homeostasis?
7. Describe the role of the hypothalamus in temperature regulation.
8. List the functions of insulin. Add a note on diabetes mellitus.
9. What is edema? Discuss the various causes of edema.
10. Discuss the secretion and functions of aldosterone.
11. Discuss the role of the kidneys in acid base regulation.
12. Explain why in chronic kidney disease the following may be seen:
  - a. Anemia.
  - b. Osteoporosis.

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