

**Rajiv Gandhi University of Health Sciences, Karnataka**  
**II Year B.Sc. Renal Dialysis Technology Degree Examination – 28-Dec-2022**

**Time: Three Hours**

**Max. Marks: 50 Marks**

**APPLIED PHYSIOLOGY RELATED TO DIALYSIS TECHNOLOGY (RS-3)**

**Q.P. CODE: 3402**

Your answers should be specific to the questions asked  
Draw neat labeled diagrams wherever necessary

**(Note: Both QP Codes 3302 and 3402 are to be answered within total duration of 3 hours)**

**LONG ESSAYS (Answer any One)**

**1 x 10 = 10 Marks**

1. Discuss Renal handling of sodium in the renal tubules
2. Describe the role of kidney as an endocrine gland

**SHORT ESSAYS (Answer any Five)**

**5 x 5 = 25 Marks**

3. Define plasma clearance. Add a note on urea clearance
4. Explain intrinsic mechanism of blood coagulation. Add a note on bleeding time and clotting time
5. Explain Tubuloglomerular feedback mechanism
6. Write a note on water reabsorption in renal tubules
7. Explain the role of vasa recta in the maintenance of renal medullary gradient
8. Outline the functions of proximal convoluted tubules. Add a note on the transport mechanisms on the PCT

**SHORT ANSWER (Answer any Five)**

**5 x 3 = 15 Marks**

9. Laplace's law
10. Prothrombin time
11. Hyponatremia
12. Give normal values of serum a) Calcium b) Phosphorous c) Uric acid
13. Define GFR and give the normal value
14. List the steps involved in urine formation

\*\*\*\*\*