

**Rajiv Gandhi University of Health Sciences, Karnataka**  
**II Year B.Sc. Renal Dialysis Technology Degree Examination – 04-Nov-**  
**2025**

**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. List the three processes in Urine formation. Define GFR. Discuss the factors affecting GFR.
2. Define hemostasis. Describe the mechanism of blood coagulation. Add a note on anticoagulants.

**SHORT ESSAYS (Answer any Five)**

**5 x 5 = 25 Marks**

3. Define plasma clearance. Explain inulin clearance.
4. Explain the endocrine functions of Kidneys.
5. Explain the causes and complications of disturbances in sodium and potassium concentration in blood.
6. Explain the process of reabsorption of glucose in the renal tubules.
7. Define bleeding time and clotting time. Explain the clinical importance of BT and Ct.
8. Role of kidney in water balance.

**SHORT ANSWER (Answer any FIVE)**

**5 x 3 = 15 Marks**

9. List the special features of renal circulation.
10. Effects of hypokalemia and hyperkalemia on body.
11. Draw a nephron. Explain the functions of different segments.
12. What is acidosis? Give examples.
13. Give the normal values of the following:  
a) Blood urea level   b) Serum creatinine level   c) Serum calcium level  
d) Plasma glucose level
14. Physiological changes taking place in renal system during pregnancy.

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