

Rajiv Gandhi University of Health Sciences, Karnataka
II Year B.Sc. Renal Dialysis Technology Degree Examination – 12-May-2026

Time: Three Hours

Max. Marks: 50

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. Define GFR. Give its normal value. Describe the factors affecting GFR
2. Briefly explain the counter current mechanism in the nephron

SHORT ESSAYS (Answer any Five)

5 x 5 = 25 Marks

3. Describe the physiological basis and lists the indications for artificial kidney
4. Draw a neat, labelled diagram of the Juxta Glomerular Apparatus. List the functions of each cell
5. Explain the renal handling of water. Write a note on Diabetes insipidus
6. Describe the intrinsic pathway of coagulation
7. Explain the role of the kidney in acid base balance
8. List hormones produced by the kidney. Explain the functions of each

SHORT ANSWER (Answer any FIVE)

5 x 3 = 15 Marks

9. Draw a neat labelled diagram of the innervation of urinary bladder
10. What is the normal platelet count? List the functions of platelet
11. Describe the changes occurring in the renal system during pregnancy
12. Define the following terms and give an example for clinical condition leading to it
 - a. Hyperkalemia
 - b. Hypercalcemia
 - c. Hyponatremia
13. List the bladder volume at which the following sensations are felt
 - a. Initial urge to void
 - b. Fullness of bladder
 - c. Pain
14. List the findings of analysis of urine sample
