Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Renal Dialysis Technology Degree Examination – 07-Nov-2026

Time: Three Hours **Max. Marks: 100**

BASICS OF RENAL DIALYSIS TECHNOLOGY (RS-3)

Q.P. CODE: 3304

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

LONG ESSAYS (Question No.2 Choice) **2 x 10 = 20 Marks**

1. Explain the anticoagulation techniques used in hemodialysis patients
2. Explain physiological principles of peritoneal dialysis

   OR

   Explain the water treatment plant components

SHORT ESSAYS (Question No.5 & 10 choice) **10 x 5 = 50 Marks**

3. Differentiate between arteriovenous fistula and arteriovenous graft
4. Describe infection control practices in dialysis unit
5. Describe the composition of hemodialysis solution

   OR

   Explain the causes, clinical features and management of dialysis disequilibrium syndrome
6. List causes and management of arterial, venous and air detector alarms during hemodialysis
7. Explain principles of hemodialysis
8. List the steps in prevention of vascular access infection
9. Mention three pros and cons of manual reprocessing technique
10. Describe the causes and prevention of muscle cramps during hemodialysis

    OR

    Describe the steps and importance of Allen's test
11. Mention and describe osmatic agents used in peritoneal dialysis
12. Explain pre and post hemodialysis assessment

SHORT ANSWER (Question No. 15 & 20 choice) **10 x 3 = 30 Marks**

13. List three chronic peritoneal dialysis catheters
14. Define Mass Area Transfer Coefficient (MTAC)
15. Mention three chemicals used in hemodialysis unit for the disinfection

    OR

    Define hemolysis during dialysis and mention its two causes
16. Define osmosis and mention two factors affecting osmosis
17. Describe two AVF cannulation techniques
18. State the normal range of heartrate, body temperature and respiration
19. Name six essential components that must be present in a crash cart
20. List three functions of dialysate

    OR

    Mention three signs of clotting in extracorporeal blood circuit
21. Draw and label a three-pore model in peritoneal dialysis
22. Define antidote. Mention one antidote for heparin

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