

Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Renal Dialysis Technology Degree Examination – 22-May-2025

Time: Three Hours

Max. Marks: 100 Marks

APPLIED RENAL DIALYSIS TECHNOLOGY – I (RS2)

Q.P. CODE: 2918

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

LONG ESSAYS (Answer any Two)

2 x 10 = 20 Marks

1. Explain anticoagulation protocols. List precautions for prevention of clotting in extracorporeal blood circuit. Explain citrate anticoagulation.
2. Discuss anatomy and physiology of peritoneal dialysis.
3. List various renal replacement therapies available for renal failure patients in intensive care unit.

SHORT ESSAYS (Answer any Ten)

10 x 5 = 50 Marks

4. Explain metabolic complication of peritoneal dialysis.
5. Explain the procedures for dialysis withdrawal.
6. Describe in brief about types of dialyzer membranes, materials, design and flux.
7. Explain hydraulic components of hemodialysis machine with schematic representation.
8. Write a note on hemodialysis machine cleaning and disinfection protocols. Explain different chemicals used for disinfection and cleaning.
9. With the help of neat labelled diagram describe peritoneal dialysis catheters and explain the differences.
10. Long term complications of Arterio venous access.
11. Explain types of hernias in peritoneal dialysis patients and risk factors for hernia formation.
12. Explain bicarbonate based hemodialysis solution, composition, advantages and disadvantages.
13. Discuss biochemical investigations done in a patient on dialysis and its significance.
14. Causes of haemolysis. How do you identify haemolysis during HD? Explain the management of haemolysis during HD.
15. Define ultrafiltration failure in peritoneal dialysis patients and explain its management.

SHORT ANSWERS (Answer any Ten)

10 x 3 = 30 Marks

16. Describe the rule of six for AV fistula.
17. List the composition of peritoneal dialysis solution.
18. What is "Break in period" in CAPD?
19. Define Kt/v. Write Kt/V for HD and PD.
20. Write any three advantages of high flux dialyzer.
21. What are the types of cannulation technique used for Arterio Venous Fistula and which is the best technique?
22. Define dialysis disequilibrium syndrome and mention any one cause for it.
23. Define dry weight.
24. Discuss high and low transporters in peritoneal dialysis.
25. What are the normal value of serum calcium, serum potassium and serum phosphorus?
26. List any three causes for outflow failure in peritoneal dialysis.
27. Define ultrafiltration coefficient.
