Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Renal Dialysis Technology Degree Examination – 10-Dec-2020

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. A 75-year-old male with history of long-standing Diabetes and cardiac problem is newly diagnosed with CKD Stage 5. Which form of Renal Replacement therapy suites him the best and why?
2. Discuss Hemodialysis apparatus.
3. Discuss adequacy of dialysis.

SHORT ESSAYS (Answer any Ten) 10 x 5 = 50 Marks

4. Physiology of peritoneal dialysis
5. Types of ultrafiltration failure in PD patients and its management
6. Peritonitis –diagnosis and treatment and management
7. Metabolic complications of PD
8. Peritoneal Equilibration Test (PET)
9. History of dialysis
10. Acute Peritoneal Dialysis
11. Long term complications of hemodialysis
12. Heparin associated complications
13. Vaccination in Hemodialysis and infection control practices in dialysis
14. Types of peritoneal Dialysis catheters. Explain with diagram.
15. Criteria for withdrawal of dialysis

SHORT ANSWERS (Answer any Ten) 10 x 3 = 30 Marks

16. Mention the Acute Complications of hemodialysis.
17. Heparin for dialysis
18. Mention the different dialyzer membranes.
19. What is Ultrafiltration Co-efficient?
20. Renalin
21. Guideline to obtain post serum urea nitrogen samples
22. What is PTFE? Where is it used?
23. Heparin Induced Thrombocytopenia (HIT)
24. Peritoneal Dialysis Fluid Composition
25. Dialyzer clearance
26. Define diffusion, Osmosis and Solvent drag
27. mechanical complications of PD

Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Renal Dialysis Technology Degree Examination – 14-Dec-2020

Time: Three Hours Max. Marks: 100 Marks

APPLIED RENAL DIALYSIS TECHNOLOGY – II (RS2)

Q.P. CODE: 2919

Your answer 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 Reverse Osmosis (RO) and deionization (DI or DM) in primary purification system. Describe all components used in the system and explain the working principle with diagram.
2. Nutritional assessment and dietary recommendation for dialysis patients
3. Explain in detail dialysis modalities, technical and clinical considerations. Write dialyzing infants and children.

SHORT ESSAYS (Answer any Ten) 10 x 5 = 50 Marks

4. Explain online hemodialfiltration.
5. Compare between membrane plasma separation and centrifugal aphaeresis
6. Compare different modalities of peritoneal dialysis
7. Complications of therapeutic plasma exchange
8. Indications of plasmapheresis
9. Precautions while dialyzing patients with HIV, HBsAg and HCV reactive. Mention immunization protocol for patients on dialysis
10. Explain MARS.
11. Explain continuous renal replacement therapy modalities and compare the advantages and disadvantages of pre-dilution and post dilution.
12. Clinical issue related to dialyser reuse
13. Mineral bone disease in CKD patients
14. Common psychological problems in end stage kidney disease patients
15. Explain about water distribution system.

SHORT ANSWERS (Answer any Ten) 10 x 3 = 30 Marks

16. Dry weight
17. Causes of Amyloidosis
18. Causes of anaemia in CKD
19. What are the water contaminants cause nausea and vomiting?
20. How to manage hyperphosphatemia?
21. How to prevent hypertension in dialysis patients?
22. How you will calculate filtration factor in CRRT?
23. DFPP
24. Water quality requirement for online HDF
25. Sorbent dialysis
26. Mention the molecular weight of few dialyzable drugs.
27. Causes of haemolysis in dialysis patients

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Renal Dialysis Technology Degree Examination – 24-Aug-2020

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. Describe the long-term complications of Veno-venous access, with emphasis on infections and its management and prevention.
2. Explain common complications during dialysis, its causes management and prevention.
3. Explain anatomy and physiology of peritoneal dialysis (PD). Elaborate peritoneal equilibration test (PET).

SHORT ESSAYS (Answer any Ten) 10 x 5 = 50 Marks

4. Metabolic complications of peritoneal dialysis
5. Type of ultrafiltration failure (UFF) and management in peritoneal dialysis patients
6. Explain about criteria for withdrawal from dialysis.
7. Explain about non-glucose containing PD solutions and it advantages and disadvantages.
8. Briefly explain the history of dialysis.
9. Long-term complications of AV access
10. Mention the different locations for Hemodialysis catheter insertion and its advantages and disadvantages.
11. Explain about post operative care and maturation in AVF and AVG.
12. Exit site and tunnel infections in PD patients
13. Mention anticoagulation agents other than heparin.
14. Explain “Peritonitis” causes, management and prevention in PD patients.
15. Explain safety features incorporated in Haemodialysis machines.

SHORT ANSWERS (Answer any Ten) 10 x 3 = 30 Marks

16. Tidal peritoneal dialysis
17. Peritoneal dialysis modalities in acute kidney injury
18. Heparin associated complications
19. Clinical issue related to dialyser reuse
20. Define transmembrane pressure.
21. Cause of infusion pain in peritoneal dialysis patients
22. NIPD
23. Mention any three dialysers and its surface area, priming volume and K_{uf}.
24. Sequential ultrafiltration
25. Mention the causes of false blood leak alarm during dialysis.
26. Common organisms causing infections in veno-venous access
27. Predisposing factors causing AV access thrombosis

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Renal Dialysis Technology Degree Examination – 26-Aug-2020

Time: Three Hours | Max. Marks: 100 Marks

APPLIED RENAL DIALYSIS TECHNOLOGY – II (RS2)

Q.P. CODE: 2919

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. Describe absolute contraindications for peritoneal dialysis. Mention complications encountered in CAPD and discuss management of bacterial peritonitis.
2. Enumerate the vascular access used in hemodialysis. Discuss the advantages and disadvantages of each.
3. Mention a few common complications in hemodialysis. How do you prevent and treat dialysis disequilibrium syndrome?

SHORT ESSAYS (Answer any Ten) 10 x 5 = 50 Marks

4. Adequacy of peritoneal dialysis
5. High flux hemodialysis
6. Indications and complications of Plasmapheresis
7. Biocompatible hemodialyzers
8. Identification of clotting of dialyser during hemodialysis
9. Draw a diagram of Techkh off CAPD catheter and name the parts.
10. SLED (Sustained Low Efficacy Dialysis)
11. Restless leg syndrome
12. Dialysis in a case of barbiturate poisoning
13. Peritoneal equilibration test
14. Universal precautions in hemodialysis
15. Disinfection in hemodialysis machine

SHORT ANSWERS (Answer any Ten) 10 x 3 = 30 Marks

16. What is transmembrane pressure?
17. What is meant by “Priming Volume”?
18. What is first use syndrome in hemodialysis?
19. What is meant by “KUF” of dialyzer?
20. What is the amount of protein in diet required for a CAPD patient?
21. Composition of peritoneal dialysate
22. Antidote for heparin
23. Name the safety monitors in the blood circuit of hemodialysis.
24. What is “Break in period” in CAPD?
25. What is sequential dialysis?
26. What is online dialysis?
27. What is MARS?

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