

[LG 0215]

**FEBRUARY 2015**  
**B.Sc. DIALYSIS TECHNOLOGY**  
**THIRD YEAR**  
**PAPER I – DIALYSIS TECHNOLOGY**

Sub.Code :1321

*Q.P. Code: 801321*

**Time: Three Hours**

**Maximum : 100 Marks**

**Answer All questions**

**I. Elaborate on:**

**(3 x 10 = 30)**

1. Define the three main principles of dialysis. Define, write the steps of measurement, the formulae for calculation and the interpretation Urea reduction ratio and Kt/V in the assessment of adequacy of dialysis. What are the clinical symptoms and signs of inadequate dialysis?
2. List and detail the various anticoagulant protocols and monitoring in in hemodialysis. Write briefly on newer anticoagulants and their use in hemodialysis.
3. Define continuous renal replacement therapy (CRRT). List the different types and the differences between them. Draw and explain the typical CRRT circuit. Write briefly about the heparin, citrate protocols and regional citrate anti coagulation in CRRT. Write briefly about the pre and post dilution methods of fluid replacement.

**II. Write notes on:**

**(8 x 5 = 40)**

1. Write briefly on dialyzer reactions.
2. Write briefly on acute dialysis prescription detailing the principles behind it.
3. Write briefly on dietary advice to patients on haemodialysis.
4. Write briefly on differences between centrifugal and filtration plasmapheresis. What is double filtration plasmapheresis?
5. Write briefly on quality assurance in hemodialysis
6. Write briefly on the different types of dialyzer membranes.
7. Write briefly on protocol for maintenance of hemodialysis machines.
8. Write briefly on temporary versus permanent dialysis venous access catheters.

**III. Write answers on:**

**(10 x 3 = 30)**

1. Carbon filter in water purification.
2. Complications of central venous catheterisation.
3. Protocol and Role of Hepatitis B vaccination in HD patients.
4. First use syndrome in haemodialysis.
5. Dialysis management of Lithium poisoning.
6. Complications of plasmapheresis.
7. Extra corporeal Immunoabsorption.
8. Ultrafiltration failure in peritoneal dialysis.
9. High flux dialysis.
10. Automated versus manual reuse of dialyzers.

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