

B.Sc. DIALYSIS TECHNOLOGY
THIRD YEAR
PAPER I – DIALYSIS TECHNOLOGY
Q.P. Code: 801321

Time: Three Hours**Maximum : 100 Marks****Answer All questions****I. Elaborate on:****(3 x 10 = 30)**

1. Define plasmapheresis. What are the methods for performing plasmapheresis? How will you monitor a patient on plasmapheresis? What are the indications for plasmapheresis? What are the different replacement fluids?
2. What are the types of vascular accesses for hemodialysis? Give the advantages and disadvantages of arterio-venous fistula versus arterio-venous graft. What are the indications for temporary hemodialysis access and mention the various temporary accesses?
3. Define hypertension. What are the different stages of hypertension? What is primary hypertension? Give some causes of secondary hypertension. How will you investigate a case of hypertension? What are some of the common medications used in the treatment of hypertension?

II. Write Notes on:**(8 x 5 = 40)**

1. How will you give dietary counseling to a CKD patient not on dialysis and to a CKD patient on hemodialysis?
2. What are the common complications seen in patients during the hemodialysis sessions and how will you treat them?
3. Mention the non infectious complications of peritoneal dialysis.
4. Explain with diagram the physiology of the peritoneal membrane.
5. What is sodium modeling? What are the different methods of sodium modeling?
6. What are the different types of AV fistula recirculation? How will you diagnose recirculation?
7. Define hypokalaemia. What are the common causes of hypokalaemia? What are the clinical manifestations of hypokalaemia?
8. What is renal allograft and who are the usual kidney donors in our country?

III. Short Answers on:**(10 x 3 = 30)**

1. How will you calculate urea reduction ratio and KT/V?
2. What are bio-compatible dialyzers? Give three examples.
3. Define acute kidney injury. What are the indications of dialysis in acute kidney injury?
4. Explain the various common causes of obstructive nephropathies.
5. What is reverse osmosis? What is its role in water treatment?
6. Explain Continuous Renal Replacement Therapy?
7. What are the universal precautions to be taken in a dialysis unit?
8. What are the methods of dialyzer reuse?
9. What is the composition of standard peritoneal dialysis fluid?
10. Explain Slow Continuous Ultra Filtration.
