[LD 0212]

AUGUST 2013 Sub.Code :1311 B.SC. DIALYSIS TECHNOLOGY

DIALYSIS TECHNOLOGY SECOND YEAR

PAPER I – MICROBIOLOGY, PATHOLOGY – II, NUTRITION AND PHARMACOLOGY

Q.P. Code: 801311

Time: Three hours Maximum: 100 Marks

Answer All questions

I Elaborate on: (3x10 = 30)

1. Describe the pathogenesis of diabetic Nephropathy and dialysis modalities for diabetic ESRD patient (ESRD –End Stage renal diseases)

- 2. What is acute renal failure? Discuss the Etiology, Pathogenesis and management from dialysis technician point of view.
- 3. Discuss the classification diagnosis and management of vasculitis.

II. Write notes on:

 $(8 \times 5 = 40)$

- 1. Drugs and the kidney
- 2. Lower urinary tract infection.
- 3. Renal nutrition for chronic kidney disease patient.
- 4. Composition of dialysis solution & a brief note on management of hyperkalemic patient.
- 5. Polycystic kidney disease.
- 6. Anaemia in kidney disease.
- 7. Drugs therapy in Hepatitis C Virus patient on dialysis.
- 8. Haemolytic Uraemic syndrome and note on plasmaphoresis.

III. Write short answers on:

 $(10 \times 3 = 30)$

- 1. Uraemic toxins.
- 2. Catheter related blood stream infection.
- 3. Complication of Heparin usage and problem in dialysis patient.
- 4. Common vital nutrient deficiency in dialysis patient.
- 5. Metabolic acidosis.
- 6. Loop diuretics.
- 7. IgA Nephropathy.
- 8. Vaccination in dialysis patient.
- 9. Growth hormone usage in renal patients.
- 10. Essential hypertension.

B.SC. DIALYSIS TECHNOLOGY SECOND YEAR

PAPER I – MICROBIOLOGY, PATHOLOGY – II, NUTRITION AND PHARMACOLOGY

Q.P. Code: 801311

Time: Three hours Maximum: 100 Marks

Answer All questions

I. Elaborate on: (3x10 = 30)

1. Discuss the hypertensive disorder in the renal patient.

- 2. Enumerate the complication of Nephrotic syndrome and their management.
- 3. Describe the mechanism of edema formation in different disease state; discuss briefly the role diuretics in the management of edema.

II. Write notes on: $(8 \times 5 = 40)$

- 1. Amyloidosis.
- 2. Systemic Lupus erythematous & renal disease.
- 3. Urinary tract infection.
- 4. Stages of chronic kidney disease.
- 5. Autosomal polycystic kidney disease.
- 6. Indication for dialysis & note on dialyze able drugs.
- 7. Exit site infection in CAPD & its management.
- 8. Nutrition in dialysis patients.

III. Write short answers on:

 $(10 \times 3 = 30)$

- 1. HIV associated Nephropathy.
- 2. NSAIDS induced Nephropathy.
- 3. Renal tuberculosis.
- 4. Haemolytic uraemic syndrome & management.
- 5. Diabetic nephropathy.
- 6. Growth retardation in children with chronic kidney disease.
- 7. Acute kidney injury.
- 8. Indication for IV fluids & ionotropes in dialysis.
- 9. Hepatitis B Virus, transmission in dialysis patient prevention & treatment.
- 10. Protamine Sulfate.

[LF 0212]

AUGUST 2014 Sub.Code :1311 B.Sc. DIALYSIS TECHNOLOGY SECOND YEAR

SECOND YEAR

PAPER I – MICROBIOLOGY, PATHOLOGY – II, NUTRITION AND PHARMACOLOGY

Q.P. Code: 801311

Time: Three hours Maximum: 100 Marks

Answer All questions

I. Elaborate on: $(3 \times 10 = 30)$

1. Classify diuretics. Write in detail about the mechanism of action, dosage and adverse effects of thiazides.

- 2. Write in detail about the transmission of human immunodeficiency virus (HIV) and add a note on the universal precautions.
- 3. Explain about the causes and pathology of end stage renal disease.

II. Write notes on: $(8 \times 5 = 40)$

- 1. Indications and advantages of low molecular weight heparin.
- 2. Write about fat soluble vitamins.
- 3. Causes for urinary tract infection.
- 4. Role of carbohydrates in diet
- 5. Prophylaxis for hepatitis B.
- 6. Complications of dialysis.
- 7. Pathology of kidney in hypertension.
- 8. Drugs and their dosages used in dialysis.

III. Write short answers on:

 $(10 \times 3 = 30)$

- 1. Name three anti diuretics
- 2. Uses of protamine sulphate
- 3. Uses of erythropoietin.
- 4. Sources of vitamin D
- 5. Causes of sclerosing peritonitis.
- 6. Congenital abnormalities of the urinary tract.
- 7. Name 2 haemodialysis concentrate.
- 8. Beta blocker anti hypertensives.
- 9. Disinfectants.
- 10. Types of candidia

[LG 0215]

FEBRUARY 2015

B.Sc. DIALYSIS TECHNOLOGY

SECOND YEAR

PAPER I – MICROBIOLOGY, PATHOLOGY – II, NUTRITION AND PHARMACOLOGY

Q.P. Code: 801311

Time: Three Hours Maximum: 100 Marks

Answer All questions

I. Elaborate on: $(3 \times 10 = 30)$

- 1. Classify antihypertensives. Add a detailed note on the action, uses, and adverse effects of angiotensin converting enzyme inhibitors.
- 2. Write in detail about the opportunistic infections in AIDS patient.
- 3. Mention the causes of peritonitis. Explain about the bacterial peritonitis.

II. Write notes on: $(8 \times 5 = 40)$

- 1. Uses of phosphate binders.
- 2. Beri-beri.
- 3. Role of lipids in diet.
- 4. Food adulterants.
- 5. Note on peritoneal dialysis fluid.
- 6. Note on vascular infection in dialysis patient.
- 7. Hemodialysis concentrate.
- 8. Protamine sulphate.

III. Short answers on:

 $(10 \times 3 = 30)$

Sub.Code:1311

- 1. Sources of vitamin c.
- 2. Antidiuretics.
- 3. Essential minerals.
- 4. Define balanced diet.
- 5. Hepatotropic virus.
- 6. Prophylaxis for hepatitis A.
- 7. Renal vascular disease.
- 8. Fat soluble vitamins.
- 9. Candidial infection.
- 10. Sources and requirement of proteins.

[LH 0815] AUGUST 2015 Sub.Code :1311

B.Sc. DIALYSIS TECHNOLOGY

SECOND YEAR

PAPER I – MICROBIOLOGY, PATHOLOGY – II, NUTRITION AND PHARMACOLOGY

Q.P. Code: 801311

Time: Three Hours Maximum: 100 Marks

Answer All questions

I. Elaborate on: $(3 \times 10 = 30)$

- 1. Give detail sketch on Mode of transmission, diagnosis, vaccinations and Universal precautions on Hepatitis B virus.
- 2. Elaborate on Acute renal failure.
- 3. Classify carbohydrates. Write in detail their sources, requirements and efficiency.

II. Write Notes on: $(8 \times 5 = 40)$

- 1. Classify the fungi based on reproduction.
- 2. Urinary tract infection sampling methods for culture and sensitivity.
- 3. Lupus nephritis.
- 4. Renal calculi.
- 5. Megaloblastic anemia.
- 6. Vitamin A and its clinical significance.
- 7. Low molecular weight heparin.
- 8. Haemodialysis concentrates.

III. Short Answers on:

 $(10 \times 3 = 30)$

- 1. Phosphate binders.
- 2. Erythropoientin.
- 3. Heparin antidote.
- 4. Food exchange principle.
- 5. Vitamin K.
- 6. Folic acid.
- 7. Haematuria.
- 8. Active urine sediment.
- 9. Gram stain procedure.
- 10. Life cycle of Malaria.

FEBRUARY 2016

B.Sc. DIALYSIS TECHNOLOGY

SECOND YEAR

PAPER I – MICROBIOLOGY, PATHOLOGY – II, NUTRITION AND PHARMACOLOGY

Q.P. Code: 801311

Time: Three Hours Maximum: 100 Marks

Answer All questions

I. Elaborate on: $(3 \times 10 = 30)$

1. Laboratory diagnosis of chronic kidney diseases.

- 2. Food selection, storage and preservation for chronic renal failure.
- 3. Drugs in dialysis dose and duration of administration of drugs.

II. Write Notes on: $(8 \times 5 = 40)$

- 1. Vitamins of therapeutic value.
- 2. Potassium exchange resins and their mode of administration.
- 3. Sunshine vitamin.
- 4. Iron dietary sources, daily requirements and deficiency manifestation.
- 5. Lupus nephritis.
- 6. Renal dysplasia.
- 7. Hepatitis C virus Mode of transmission and its Pathogenesis.
- 8. Define the following a) Pathogen b) Virulence c) Toxigenicity
 - d) Invasion e) Non-pathogen

III. Short Answers on:

 $(10 \times 3 = 30)$

Sub.Code:1311

- 1. Gram stain procedure.
- 2. Universal precautions.
- 3. Define opportunistic infections. Write two examples.
- 4. Azotemia.
- 5. Ketonuria.
- 6. Hydronephrosis.
- 7. Scurvy.
- 8. Vitamin K.
- 9. Vasopressors.
- 10. Calcium channel blockers.

AUGUST 2016

Sub. Code: 1311

B.Sc. DIALYSIS TECHNOLOGY SECOND YEAR

PAPER I – MICROBIOLOGY, PATHOLOGY-II, NUTRITION AND PHARMACOLOGY

Q.P. Code: 801311

Time: Three Hours Maximum: 100 Marks

Answer all questions

I. Elaborate on: $(3 \times 10 = 30)$

1. Classify the causes and the pathology of Chronic kidney diseases.

- 2. What is peritonitis? Classify and describe the pathological differences between them.
- 3. Health care associated infections: Describe the sources and routes of transmission and prevention of these infections.

II. Write notes on: $(8 \times 5 = 40)$

- 1. CAPD care and exit site infections.
- 2. Congenital abnormalities of the urinary system.
- 3. Preparation of dialysate solutions.
- 4. Pathology of the kidney in chronic diseases: Hypertension and diabetes mellitus.
- 5. Renal diet planning for a patient with chronic renal failure.
- 6. Potassium sparing diuretics.
- 7. Reno-vascular hypertension and management.
- 8. Laboratory diagnosis of urinary tract infections.

III. Short answers on: $(10 \times 3 = 30)$

- 1. Define significant bacteriuria. Classify the causative agent of Urinary tract infections.
- 2. Define "terminal disinfection" and "concurrent disinfection".
- 3. Modes of transmission and prevention of Hepatitis B viral infection.
- 4. Causes of End stage renal disease.
- 5. Cleaning agents used in dialysis machines.
- 6. List the indication and dose of Intravenous iron.
- 7. With respect to antimicrobial resistance, expand and define MRSA and ESBL organisms.
- 8. Define Opportunistic infections. Name 2 opportunistic pathogens.
- 9. Draw and label a diagram of the peritoneum.
- 10. List six essential minerals in the human diet.

B.Sc. DIALYSIS TECHNOLOGY SECOND YEAR

PAPER I – MICROBIOLOGY, PATHOLOGY-II, NUTRITION AND PHARMACOLOGY

Q.P. Code: 801311

Time: Three Hours Maximum: 100 Marks

Answer all questions

I. Elaborate on: $(3 \times 10 = 30)$

1. Classify anti-hypertensives according to their site of action and specific indications.

- 2. List the causative agents of urinary tract infections (UTI). Describe in detail the importance of specimen collection and transport in the laboratory diagnosis of UTI.
- 3. Describe in detail a renal diet plan for a patient with chronic renal failure.

II. Write notes on: $(8 \times 5 = 40)$

- 1. Universal precautions.
 - 2. CAPD care and exit site infections.
 - 3. Classify glomerular diseases.
 - 4. Classify food proteins. Describe the effects of protein deficiency.
 - 5. Causes and pathology of End stage renal disease.
 - 6. Cleaning agents and disinfection protocols in dialysis rooms.
 - 7. Blood borne viruses.
 - 8. Opportunistic infections.

III. Short answers on:

 $(10 \times 3 = 30)$

Sub. Code: 1311

- 1. List the sources of infection in hospitalized patients.
- 2. Prevention of Hepatitis B viral infection.
- 3. With respect to antimicrobial resistance, expand and define MRSA and ESBL organisms.
- 4. List three differences between regular and peritoneal dialysis solutions.
- 5. Indication and dose of potassium exchange resins.
- 6. Define Peritonitis. List the types of Peritonitis.
- 7. List six essential minerals in human diet.
- 8. List three Endemic infections and the sources of those infections in India.
- 9. Gram stain.
- 10. List three congenital disease of the urinary system.
