# SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH

(A DEEMED TO BE UNIVERSITY)

#### B.Sc. Allied Health Sciences Second Year Semester-IV

March 2022 Examination

B.Sc. Renal Dialysis Technology

Time: 3 Hrs.

Paper - I

[Max. Marks: 100]

# Applied Pathology & Microbiology related to Dialysis Technology

Your answers should be specific to the questions asked. Draw neat labelled diagrams wherever necessary.

(Use separate answer booklet for Section A & B)

Section - A

Applied Pathology (50 Marks)

Q.P Code: J4505

Long Essay

 $2 \times 10 = 20 \text{ Marks}$ 

- Classify glomerular diseases and describe etiopathogenesis and morphology of post streptococcal glomerular nephritis
- 2. Describe physical and chemical examination of urine

Short Essay (Answer any three)

 $3 \times 5 = 15 \text{ Marks}$ 

- 3. Describe etiopathogenesis and morphology of acute tubular necrosis
- 4. Nephrosclerosis
- 5. Cystic diseases of kidney
- 6. Describe etiopathogenesis in end stage renal disease
- 7. Describe etiopathogenesis and morphology of tubercular pyeonephritis

Short Answers (Answer any five)

 $5 \times 3 = 15 \text{ Marks}$ 

- 8. Azotemia
- 9. Bence Jones Protein
- 10. Dialysis induced renal diseases
- 11. Kimmelsteil Wilson disease
- 12. Nephritic syndrome
- 13. Urine findings in urinary tract infection

14. Sclerosing peritonitis

Section - B

Applied Microbiology (50 Marks)

Q.P Code: J4506

(Use separate answer booklet for Section-B)

Long Essay

 $2 \times 10 = 20 \text{ Marks}$ 

- 1. Explain the modes of transmission and laboratory diagnosis of Human immunodeficiency virus (HIV).
- List the microbes causing Urinary Tract Infections. Write in detail about the sample collection, transport and laboratory diagnosis of Urinary Tract Infections.

Short Essay (Answer any three)

3 x 5=15 Marks

- 3. Gram Stain
- 4. Blood culture
- 5. Mention methods of antibiotic sensitivity testing. Elaborate on Disc diffusion method
- 6. Biomedical waste management
- 7. Laboratory diagnosis of Candida

Short Answers (Answer any five)

- 8. Mention three gram negative bacilli
- 9. Steps of Hand hygiene
- 10. Microbiological testing of dialysis water.
- 11. Modes of transmission of Hepatitis C virus
- 12. Mention the PPE used by the dialysis technician during dialysis.
- 13. Name hepatotropic viruses.
- 14. Hepatitis B vaccines

5 x 3=15 Marks



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# B.Sc. Allied Health Sciences Second Year (Semester-IV) March 2022 Examination B.Sc. Renal Dialysis Technology

Time: 2 Hrs.

[Max. Marks: 40]

#### Paper-II

### PHARMACOLOGY RELATED TO DIALYSIS TECHNOLOGY

Q.P Code: J4510

Your answers should be specific to the questions asked. Draw neat labelled diagrams wherever necessary.

#### Long essay

 $1 \times 10 = 10$  Marks

 Classify anticoagulants. Explain mechanism of action, uses and adverse effects of warfarin (4+2+2+2)

#### Short essay (Answer any three)

 $3 \times 5 = 15$  Marks

- Explain mechanism of action and technique of administration of potassium exchange resin (2.5+2.5)
- Mention the dialysate composition in hemodialysis. Explain advantages and disadvantages of dialysate sodium (3+2)
- Explain two techniques of approach in hemodialysis and write their advantages (2.5+2.5)
- 5. Explain mechanism of action, uses and adverse effects of aspirin (1.5+2+1.5)

# Short answer (Answer any five)

 $5 \times 3 = 15$  Marks

- 6. Mention three antiseptics and write three uses
- 7. Mention three advantages of low molecular weight heparin
- 8. List three steps involved in catheter care in dialysis
- Explain mechanism of action, write one use and one adverse effect of protamine sulfate
- 10. Mention three complications of peritoneal dialysis
- 11. Mention three disinfectants and write three uses



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March 2022 Examination

B.Sc. Renal Dialysis Technology (RDT)

Time: 2.30 Hrs.

Paper - III

[Max. Marks: 80]

# Concept of Renal Disease and its management

Q.P Code: J4520

Your answers should be specific to the questions asked. Draw neat labelled diagrams wherever necessary.

LONG ESSAY

 $2 \times 10 = 20 \text{ Marks}$ 

- 1. Discuss the etiopathogenisis of renal stones and its management
- 2. Reno vascular Hypertension- pathophysiology and its management

#### SHORT ESSAY (Answer any Six)

6X5 = 30 Marks

- 3. Renal Cell carcinoma
- HELP syndrome
- 5. Obstructive uropathy
- 6. ADPKD
- 7. Classify the cystic diseases of the kidney
- 8. Physiological changes of kidney in Pregnancy
- 9. Fanconi Syndrome
- 10. Acquired Cystic kidney disease

#### SHORT ANSWERS (Answer any Ten)

10 X 3 = 30 Marks

- 11. Name three types of renal stones
- 12. Name three Congenital diseases of kidney
- 13. Name three tumors of the Urinary system
- 14. Renal Tubular Acidosis
- 15. Classification of Nutrients
- 16. Name three extra renal manifestations of ADPKD
- 17. Name three fat soluble vitamins
- Horseshoe Kidney
- 19. Diet in Renal stone
- 20. Medullary sponge kidney
- 21. Struvite Stones
- 22 Wilms Tumor

