## SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH

(A DEEMED TO BE UNIVERSITY)

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

September 2021 Examination

B.Sc. Renal Dialysis Technology

Time: 3 Hrs.

Paper - I

[Max. Marks: 100]

# Applied Anatomy & Physiology 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 Anatomy (50 Marks)

O.P Code: J3475

LONG ESSAY

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

- List the different parts of Urinary system. Describe the location, external features and blood supply of Kidney. (2+2+3+3)
- 2. Describe the Urinary bladder under following headings:
  - a) External features b) Relations c) Blood supply d) Nerve supply

(3+2+2+3)

SHORT ESSAY (Answer any three)

3. Discuss the development of Kidney

- 4. Illustrate the microscopic structure of Prostate and mention its salient features.
- 5. Describe the origin, course and branches of Axillary artery
- 6. Describe the course and tributaries of Great saphenous vein
- 7. Describe the subdivisions of Male urethra

SHORT ANSWERS (Answer any five)

5x3=15 Marks

3x5=15 Marks

- 8. Mention the layers and location of Transitional epithelium
- 9. Mention the constrictions of Ureter
- 10. Enumerate any 3 branches of Femoral artery
- 11. Draw a labelled diagram of microscopic structure of Ureter
- 12. What is Horse-shoe kidney?
- 13. List the parts of male urethra
- 14. Mention the Posterior relations of Right Kidney

Section - B

Applied Physiology (50 Marks)

O.P Code: J3476

(Use separate answer booklet for Section-B)

LONG ESSAY

2 X 10 = 20 Marks

- Describe water reabsorption in the nephron.
- 2. Describe with flowchart intrinsic and extrinsic pathway of coagulation

SHORT ESSAY (Answer any three)

3 X 5 = 15 Marks

- Describe the mechanism of tubuloglomerular feedback.
- 4. Define & classify renal failure
- List the Difference between cortical & juxtamedullary Nephron.
- 6. Describe the functions of platelets
- 7. Describe the role of vasa recta in renal function.

#### SHORT ANSWERS (Answer any five)

5 X 3 = 15 Marks

- 8. List the functions of PCT
- 9. Add a note on diabetes insipidus
- 10 Define Filtration fraction. Give its normal value
- 11. Name 2 hormones acting on renal tubules.
- 12. List the special features of renal circulation.
- 13. Give the cause for haemophilia
- 14. List the buffer mechanisms in kidney



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# B.Sc. Allied Health Sciences Second Year (Semester-III) September 2021 Examination B.Sc. Renal Dialysis Technology

Time: 2 Hrs.

[Max. Marks: 40]

#### Paper-II

#### PHARMACOLOGY RELATED TO DIALYSIS TECHNOLOGY

Q.P Code: J3480

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

#### Long essay

 $1 \times 10 = 10$  Marks

 Classify diuretics. Explain mechanism of action of any three drugs from different category with their adverse effects. (4+2+2+2)

#### Short essay (Answer any three)

 $3 \times 5 = 15$  Marks

- Explain mechanism of action, uses and adverse effects of colloids (2+2+1)
- 3. Explain mechanism of action, uses and adverse effects of losartan (2+2+1)
- 4. Explain the factors affecting the drugs used in dialysis
- 5. Mention types of shock, Explain treatment of septic shock (2+3)

#### Short answer (Answer any five)

 $5 \times 3 = 15$  Marks

- 6. Mention three phosphate binders
- 7. Mention three drugs contraindicated during dialysis
- 8. List three indications for parenteral iron
- 9. Mention one use and two adverse effects of erythropoietin (1+2)
- 10. Mention three uses of vitamin D analogues
- 11. List three drugs used in hypertensive emergency

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### B.Sc. Allied Health Sciences Second Year (Semester-III)

September 2021 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: J3490

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

#### LONG ESSAY

2 X 10 = 20 Marks

- 1. Define Acute Kidney Injury (AKI). Write about Classification and pathophysiology of AKI.
- 2. Define CKD. Mention the Stages of CKD and pathophysiology calcium and Phosphorous.

#### SHORT ESSAY (Answer any Six)

6 X 5 = 30 Marks

- 3. Asymptomatic Urinary abnormalities
- 4. Nephrotic syndrome- Pathophysiology
- 5. Secondary Nephrotic Syndrome
- 6. Urinary Tract Infections causes and treatment
- 7. Acute nephritic Syndrome
- 8. Diet in CKD Stage 1-4
- Treatment modalities for CKD Stage 5
- 10. Food and Obesity

#### SHORT ANSWERS (Answer any Ten)

10 X 3 = 30 Marks

- 11. Define Nephrotic syndrome
- 12. Mention three causes of primary Nephrotic Syndrome
- 13. Mention three organisms causing UTI
- 14. Mention three causes of secondary Nephrotic syndrome
- Renal osteodystrophy
- 16. Anemia of CKD
- 17. Mention the normal values of S Calcium, S Albumin & S Phosphorus
- Mention three post renal causes of AKI
- 19. Mention three common causes of CKD
- 20. Treatment of Minimal change Disease
- 21. Acute interstitial Nephritis
- 22 Mention three drugs causing AKI