SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION & RESEARCH

(A DEEMED TO BE UNIVERSITY)

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

February – 2018 Examination

B.Sc. Renal Dialysis Technology (RDT)

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 related to Dialysis Technology (50 Marks)

Q.P Code : AHS-134

LONG ESSAY **2 X 10 = 20 Marks**

1. Define hernia. Enumerate the different types of abdominal hernia. Describe the indirect inguinal hernia.
2. Describe the kidney under the following headings
   a) Coverings b) Morphology c) Relations

SHORT ESSAY (Answer any three) **3 X 5 = 15 Marks**

3. Tributaries of internal jugular vein.
4. Development of secretory and collecting parts of the kidney.
5. Mesentry.
6. Profunda femoris artery.
7. Juxtaglomerular apparatus.

SHORT ANSWERS (Answer any five) **5 X 3 = 15 Marks**

8. Brodel's line.
9. Disc kidney.
10. Lienorenal ligament.
11. Transitional epithelium.
12. Carotid body.
13 Median cubitalvein.
14. Varicose veins.

Section – B

Applied Physiology related to Dialysis Technology (50 Marks)

Q.P Code : AHS-135

(Use separate answer booklet for Section-B)

LONG ESSAY **2 X 10 = 20 Marks**

1. Define hemostasis. List the major steps involved in hemostasis. Explain extrinsic pathway for initiating blood clotting. Add a note on role of calcium in blood coagulation.
2. Explain the functioning of ammonia buffer system.

SHORT ESSAY (Answer any three) **3 X 5 = 15 Marks**

3. Define glomerular filtration rate. Briefly explain three factors that determine the glomerular filtration rate.
4. Explain the mechanism of urine formation.
5. Explain the peculiar features of renal blood flow
6. Define renal clearance. What is the significance of knowing renal clearance. Give the formula for renal clearance.
7. List the factors stimulating rennin secretion. Explain rennin angiotensin mechanism.

SHORT ANSWERS (Answer any five) **5 X 3 = 15 Marks**

8. What is the clearance value for urea. What is the role of urea in concentration of urine.
9. Name the site and mechanism for glucose reabsorption in nephron. Give normal value of tubular maximum for glucose.
10. What is renal tubular transport maximum. Explain with example.
11. Hemophilia.
12. Name one condition for hyper natremia and explain the mechansim for it.
13. What is the normal plasma calcium level. Which renal hormone influences it and how?
14. Name the potassium rich food substances to be avoided in chronic renal diseases and why?

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February-2018 Examination

B.Sc. Renal Dialysis Technology (RDT)

Time : 2.30 Hrs. **Paper - II** **[Max. Marks : 80]**

Pharmacology Related to Dialysis Technology

Q.P. Code: AHS-136

LONG ESSAY **2 X 10 = 20 Marks**

1. Classify antihypertensive agents. Explain the pharmacological actions and side effects of alpha blockers.
2. Explain about IV fluids used during dialysis. Comment on the complications observed during IV fluid therapy.

SHORT ESSAY(Answer any Six) **6X 5 = 30 Marks**

3. High efficacy diuretics.
4. Phosphate binders.
5. Parenteral iron preparations.
6. Vasopressor agents.
7. Folic acid.
8. Comment on side effects of Thiazides.
9. List the vasopression analogues. Explain their uses and adverse effects.
10. Erythropoietin.

SHORT ANSWERS(Answer any Ten) **10 X 3 = 30 Marks**

11. Name three contraindications of beta blockers.
12. Drugs used in hypotension.
13. Vitamin D.
14. Mention three dialyzable drugs.
15. Name three drugs used during dialysis.
16. Mention three antihistaminics.
17. Vitamin B.
18. List three nephrotoxic drugs.
19. List three uses of jemisartan.
20. Mention three complications seen during dialysis.
21. List three drugs adminstratred by I V Route.
22. Vitamin C.

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B.Sc. Renal Dialysis Technology (RDT)

Time : 2.30 Hrs. **Paper - III** **[Max. Marks: 80]**

Concept of Renal Disease & its Management

Q.P.Code: AHS-137

LONG ESSAY **2 X 10 = 20 Marks**

1. Pathogenesis, clinical manifestations and treatment of Diabetic Nephropathy.
2. Acute kidney injury in the Tropics.

SHORT ESSAY(Answer any Six) **6X 5 = 30 Marks**

3. Lupus Nephritis.
4. Neurologic complications of Chronic Kidney disease.
5. Glomerular filtration rate.
6. Causes and treatment of urinary tract infections in males.
7. Amino glycocide nephrotoxicity.
8. Nutritional assessment in chronic kidney diseases.
9. Membranous nephropathy.
10. Treatment of hyperparathyroidism.

SHORT ANSWERS(Answer any Ten) **10 X 3 = 30 Marks**

11. Three non dialyzable drugs.
12. Treatment of lithium toxicity.
13. Three causes of metabolic alkalosis.
14. Three complications of nephrotic syndrome.
15. Foods rich in phosphate.
16. Name three gram negative bacteria.
17. Three causes of secondary glomerular disease.
18. Normal serum levels of calcium, phosphate and magnesium.
19. Three indications of emergency hemodialysis.
20. Side effects of erythropoiesis stimulating agents(ESA) therapy.
21. Causes of post renal acute kidney injury.
22. Mention three infections common in post renal transplant patient.

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