

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

March 2021 Examination

B.Sc. Renal Dialysis Technology

Paper – I

[Max. Marks: 100]

Time: 3 Hrs.

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)

Q.P Code : J3475

LONG ESSAY

2 X 10 = 20 Marks

1. Describe the Prostate gland under the following headings
a) External features b) Lobes c) Structure d) Applied aspects (3+2+3+2)
2. Describe the Kidney under following headings:
a) Location b) External features c) Anterior relations of right and left kidney (2+3+5)

SHORT ESSAY (Answer any three)

3 X 5=15 Marks

3. Describe the origin, course and branches of brachial artery
4. Describe the Internal Trigone of Urinary bladder
5. Discuss the development of Kidney
6. Illustrate the microscopic structure of Urinary bladder and mention its salient features.
7. Describe the course and constrictions of Ureter

SHORT ANSWERS (Answer any 5)

5 X 3=15 Marks

8. List the Ligaments of Urinary bladder
9. Mention the coverings of Kidney
10. Enumerate any 3 branches of External carotid artery
11. Draw a labelled diagram of microscopic structure of Ureter
12. Describe the layers of Transitional epithelium with help of diagram.
13. Mention the boundaries of Epiploic foramen
14. Name the parts of a Nephron

Section – B

Applied Physiology (50 Marks)

Q.P Code : J3476

(Use separate answer booklet for Section-B)

LONG ESSAY

2 X 10 = 20 Marks

1. Describe the role of tubulo glomerular feedback mechanism in regulation of GFR.
2. Give the normal renal threshold for glucose. Describe how glucose is reabsorbed from the proximal tubule.

SHORT ESSAY (Answer any three)

3 X 5 = 15 Marks

3. Describe the significance of PAH and creatinine clearance.
4. Describe the extrinsic mechanism of clotting.
5. Explain obligatory & facultative reabsorption of water
6. List 2 hormones acting on the kidneys & Explain
7. List the components of countercurrent mechanisms in kidney & mention their function.

SHORT ANSWERS (Answer any five)

5 X 3 = 15 Marks

8. Give the normal prothrombin time. Name one cause for increase in prothrombin time
9. Give the effects of ADH on renal tubules and the sites of action
10. Define renal clearance. Give the formula to calculate the same
11. Give the normal pH of blood. List the body's major buffer system.
12. List the non excretory functions of kidney.
13. Describe the role of vasa recta in renal function.
14. List the functions of platelets.

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B.Sc. Allied Health Sciences Second Year (Semester-III)
March 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 × 10 = 10 Marks

1. Classify drugs used in hypertension. 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 × 5 = 15 Marks

2. Explain differences between crystalloids and colloids (2.5+2.5)
3. Explain mechanism of action, uses and adverse effects of mannitol (2+2+1)
4. Explain the factors affecting the drugs used in dialysis
5. Mention phosphate binders. Explain their advantages and disadvantages (2+3)

Short answer (Answer any five)

5 × 3 = 15 Marks

6. Mention three uses and three specific adverse effect of hydrochlorothiazide (1.5+1.5)
7. Mention **three** dialyzable drugs
8. List **three** indications for oral iron
9. Explain mechanism of action and **two** adverse effects of erythropoietin (1+2)
10. Mention three nephrotoxic drugs
11. List **three** indications for folic acid



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B.Sc. Renal Dialysis Technology (RDT)

Time : 2.30 Hrs.

Paper - III

[Max. Marks : 80]

Concept of Renal Disease and its Management

QQ.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)

6X 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
9. Treatment modalities for CKD Stage 5
10. Food and Obesity

SHORT ANSWERS (Answer any Ten)

10 X 3 = 30 Marks

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

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