

B.Sc. Renal Dialysis Technology Second Year Semester-III
February 2020 Examination

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)

Q.P Code : J3475

LONG ESSAY

2 X 10 = 20 Marks

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

SHORT ESSAY (Answer any three)

3 X 5 = 15 Marks

3. Describe the origin, course and branches of Brachial artery.
4. Describe the attachment and contents of Mesentery.
5. Discuss the development of Kidney with anomalies.
6. Illustrate the microscopic structure of Ureter and mention its salient features.
7. Describe the gross structure of Prostate.

SHORT ANSWERS (Answer any five)

5 X 3 = 15 Marks

8. Mention the Applied aspect of Median cubital vein.
9. Mention the constrictions of Ureter.
10. Enumerate any 3 branches of Femoral artery.
11. Draw a labelled diagram of microscopic structure of Prostate.
12. What is Horse-shoe kidney?
13. List the parts of male urethra.
14. Draw a labelled diagram of 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. Draw a neat labelled diagram of Juxtaglomerular apparatus. Name one hormone it secretes & the stimulus for secretion of that hormone.
2. Describe with flowchart intrinsic and extrinsic pathway of coagulation.

SHORT ESSAY (Answer any three)

3 X 5 = 15 Marks

3. Describe the factors affecting GFR.
4. Describe reabsorption of Na⁺ in DCT .
5. Describe facultative reabsorption of water.
6. List the functions of kidney.
7. Describe the functions of platelets.

SHORT ANSWERS (Answer any five)

5 X 3 = 15 Marks

8. Add a note on diabetes insipidus.
9. Classify diuretics.
10. List the functions of loop of henle.
11. Give the normal bleeding time. Name one cause for increase in bleeding time.
12. Mention the 3 basic renal processes that lead to formation of urine.
13. Describe the role of vasa recta in renal function.
14. Name 2 hormones acting on renal tubules.

* * *

B.Sc. Renal Dialysis Technology Second Year Semester-III
February 2020 Examination

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 diuretics. Explain mechanism of action, uses and adverse effects of frusemide (4+2+2+2)

Short essay (Answer any **three**)

3 × 5 = 15 Marks

2. Mention colloids with their advantages and disadvantages. (2+3)
3. Explain mechanism of action, uses and adverse effects of lisinopril. (2+2+1)
4. Mention drugs used in septic shock with rationale for their use. (2+3)
5. Explain pharmacokinetic factors affecting drugs used in dialysis.

Short answer (Answer any **five**)

5 × 3 = 15 Marks

6. Mention **three** drugs used in hypertensive emergency.
7. Mention **three** dialyzable drugs.
8. Mention **three** oral iron preparations with their indications for iron.
9. Explain mechanism of action and **two** adverse effects of erythropoietin. (1+2)
10. Mention **three** drugs contraindicated during dialysis.
11. Mention **two** phosphate binders with their use. (2+1).

* * * * *

B.Sc. Renal Dialysis Technology Second Year Semester-III
February 2020 Examination

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. Treatment of Minimal Change Disease
4. Acute nephritic Syndrome
5. Urinary Tract Infections – causes and treatment
6. Secondary Nephrotic Syndrome
7. Nephrotic syndrome- Pathophysiology
8. Diet in CKD Stage 5
9. Food and Obesity
10. Asymptomatic Urinary abnormalities

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
15. Renal osteodystrophy
16. Anemia of CKD
17. Mention the normal values of S Calcium , S Albumin & S Phosphorus
18. 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