

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

February – 2019 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)

Q.P Code : J3475

Draw neat labeled diagrams wherever necessary.

LONG ESSAY

2 x 10 = 20 Marks

- Describe the Kidney under following headings
a) Location b) External features c) Arterial segments of Kidney d) Applied aspects. (2+3+3+2).
- Describe the Urinary bladder under following headings:
a) External features b) Internal features c) Nerve supply d) Applied aspects (3+3+2+2)

SHORT ESSAY (Answer any three)

3x5=15 Marks

- Describe the course, tributaries and applied anatomy of Great saphenous vein.
- Describe the course of Ureter and mention its constrictions.
- Discuss the development of Kidney with anomalies.
- Illustrate the microscopic structure of Ureter and mention its salient features.
- Describe the histology of Kidney.

SHORT ANSWERS (Answer any five)

5x3=15 Marks

- List the parts of male urethra.
- List the parts of a Nephron.
- Enumerate any 3 branches of Brachial artery.
- Draw a labelled diagram of microscopic structure of Urinary bladder.
- What is Renal angle?
- Median cubital vein.
- Epiploic foramen.

Section – B

Applied Physiology (50 Marks)

Q.P Code : J3476

(Use separate answer booklet for Section-B)

LONG ESSAY

2 X 10 = 20 Marks

- Give the normal range of platelets. List the functions of platelets. Describe the role of platelets in formation of temporary haemostatic plug.
- Explain how bicarbonate ions are secreted in renal tubules.

SHORT ESSAY (Answer any three)

3 X 5 = 15 Marks

- Describe the various factors regulating renal blood flow.
- Explain the function of filtration membrane
- Describe the significance of creatinine clearance.
- Describe facultative reabsorption of water.
- Describe renal handling of glucose in the proximal tubule of the nephron.

SHORT ANSWERS (Answer any five)

5 X 3 = 15 Marks

- Name three inputs controlling renin secretion.
- Give the normal clotting time. Name one cause for increase in clotting time
- Give the effects of ADH on renal tubules and the sites of action
- Name 2 hormones acting on renal tubules.
- List the functions of PCT.
- Define renal failure.
- List the functions of platelets.

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B.Sc. Allied Health Sciences Second Year (Semester-III)
February 2019 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, uses and adverse effects of lisinopril (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 and adverse effects of frusemide and hydrochlorthiazide (2.5+2.5)
4. Explain mechanism of action, uses and adverse effects of vasopressin (1+2+2)
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 adverse effects of mannitol (1.5+1.5)
7. Mention **three** dialyzable drugs
8. List **three** indications for parenteral iron
9. Mention **two** uses and **one** adverse effect of erythropoietin (2+1)
10. Mention **three** drugs contraindicated in pregnancy induced hypertension
11. List **three** indications for vitamin D

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

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. Discuss the etiopathogenesis and pathophysiology of Acute Nephritic Syndrome in a child.
2. Define Acute Kidney Injury (AKI). Write about Classification and pathophysiology of AKI.

SHORT ESSAY (Answer any Six)

6X 5 = 30 Marks

3. Pathophysiology of edema in primary Nephrotic syndrome
4. Acute Pyelonephritis
5. Diet in Pre Dialysis Stage 1-4
6. Food and Obesity
7. Reflux Nephropathy
8. Management of AKI
9. Secondary Nephrotic syndrome
10. Asymptomatic Urinary abnormalities

SHORT ANSWERS (Answer any Ten)

10 X 3 = 30 Marks

11. Mention three drugs causing AKI
12. Treatment of Minimal change Disease
13. Mention three secondary causes of Nephrotic Syndrome
14. Mention three organisms causing UTI
15. Congenital Nephrotic Syndrome
16. Renal osteodystrophy
17. Mention three modalities of treatment for a patient with advanced renal failure
18. Mention three post renal causes of AKI
19. Mention the normal values of S Calcium , S Albumin & S Phosphorus
20. Mention three common causes of CKD
21. Mention three organisms causing UTI
22. Acute interstitial Nephritis