

**PARAMEDICAL BOARD, BANGALORE**  
**ANNUAL EXAMINATION AUGUST - 2018**

**DIALYSIS TECHNOLOGY**

Time: 3.00 HRS

Max Marks:100

**GENERAL INSTRUCTIONS:**

- i) The question paper has two parts A and B. Both the parts are compulsory.
- ii) Write neat diagrams wherever necessary, Handwriting should be legible.

**Subject: Pharmacology**

**Q P CODE: 5151**

- I. Short notes, answer any FOUR questions. 4 X 5 = 20 marks**
- 1. Uses and contraindications for the use of opioid analgesics.
  - 2. Management of status asthmaticus.
  - 3. What are the general considerations when choosing an antibiotic?
  - 4. Write about calcium preparations.
  - 5. Write the differences between dopamine and dobutamine.
- II. Short answers 10 X 3 = 30 marks**
- 6. Sources of drug information.
  - 7. Uses of pantoprazole.
  - 8. Hematinics and their uses.
  - 9. Influenza vaccine.
  - 10. Dicoumarol.
  - 11. Propofol
  - 12. Intradermal route of drug administration
  - 13. Uses of amiodarone.
  - 14. Side effects of atropine.
  - 15. Uses of Domperidone.

**Subject: Theory of Dialysis**

**Q P CODE: 5152**

- I. Short notes, answer any FOUR questions. 4 X 5 = 20 marks**
- 1. Describe consequences of renal failure
  - 2. Enumerate the advantages of dialyzer reuse.
  - 3. What are AAMI standards for water quality in HD?
  - 4. Anatomy of artificial kidneys (dialyzers) with diagram
  - 5. Precautions to be taken while dialyzing a sero-positive patient for patient and your safety
- II. Short answers 10 X 3 = 30 marks**
- 6. Disadvantage of dialyzer reuse
  - 7. What is osmosis?
  - 8. Name anticoagulants (IV and oral)
  - 9. Types of dialyzers based on flux
  - 10. Name disinfectants used in sterilization of dilayzers
  - 11. What are the types of dialysis catheters?
  - 12. KUF (Co efficient of ultrafiltration)
  - 13. What is ultrafiltration (UF)?
  - 14. What is CCPD/ APD?
  - 15. Types of vascular access in HD

**VIDYA INSTITUTE OF PARA MEDICAL SCIENCES**  
Mysore Road, Malavalli - 571 430, Mandya Dist.

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**PARAMEDICAL BOARD, BENGALURU**  
**ANNUAL EXAMINATION, AUGUST 2019**

**II YEAR DIPLOMA IN DIALYSIS TECHNOLOGY (DDT)**

**TIME: 3 HRS (RS -2 SCHEME) MAX. MARKS: 100**

**QP CODE- 5151, SECTION-A, APPLIED PHARMACOLOGY**

(WRITE IN SEPARATE ANSWER BOOK)

**I. SHORT NOTES - ANSWER ANY FOUR**

**4X5 = 20**

1. Classify routes of drug administration. Mention the advantages of intramuscular route of drug administration.
2. Mention the uses and adverse effects of diazepam
3. Management of Hypovolemic shock.
4. Write the differences between Metoclopramide and Domperidone
5. Write the regimen of Anti-retroviral drugs used in post exposure prophylaxis

**II. SHORT ANSWERS**

**10X3=30**

6. Mention the uses of Adrenaline.
7. Mention the drugs used in acute severe asthma
8. Mention the Parenteral Iron preparation and their uses.
9. Mention three vasopressors.
10. Mention the uses and adverse effects of Aspirin
11. Mention the uses and adverse effects of Insulin.
12. Sodium Bicarbonate
13. Mention three Proton Pump inhibitors and their uses
14. Mention three antibiotics contraindicated in renal failure
15. Name three crystalloids and their uses

**QP CODE- 5152, SECTION-B, THEORY OF DIALYSIS**

(WRITE IN SEPARATE ANSWER BOOK)

**I. SHORT NOTES - ANSWER ANY FOUR**

**41X5 = 20**

1. Define diffusion, osmosis and convection in dialysis setting.
2. Precautions to be taken while dialyzing a sero-positive patient for patient and your safety.
3. Describe the advantages and disadvantages of peritoneal dialysis.
4. What are the types of renal failure? Mention the complications of renal failure.
5. Disinfection of haemodialysis machine- types, agents used and indications for disinfection

**II. SHORT ANSWERS**

**10X3=30**

6. What is transmembrane pressure (TMP) and its importance.
7. Mention the laboratory tests done in patients with renal failure.
8. Mention the Types of dialyzers based on flux.
9. Mention steps in storage of dialyzers.
10. Acid concentrate composition
11. Types of vascular access in HD
12. What is proportion of mixture of processed water: acid concentrate: bicarbonate?
13. Disadvantage of dialyzer reuse
14. When to discard the dialyzers during reuse?
15. What are the options for a patient with AV fistula failure?

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KARNATAKA NURSING & PARAMEDICAL SCIENCES EDUCATION (REGULATION) AUTHORITY  
PARAMEDICAL BOARD, BENGALURU  
SUPPLEMENTARY EXAMINATION, JANUARY 2020  
II YEAR DIPLOMA IN DIALYSIS TECHNOLOGY  
QP CODE- 5151, SECTION-A, APPLIED PHARMACOLOGY(RS -2  
SCHEME)

(WRITE IN BLUE ANSWER BOOK)

TIME: 3 HRS

MAX. MARKS: 100

I. SHORT NOTES - ANSWER ANY FOUR

4X5 = 20

1. Mention the advantages and disadvantages of Intra-Venous route of Drug administration.
2. Mention the uses, precautions and contraindications of Morphine.
3. Diazepam
4. Mention the uses and adverse effects of Erythropoietin.
5. Mention the uses and contraindications of Heparin.

II. SHORT ANSWERS

10X3=30

6. Mention two uses and two adverse effects of Atropine
7. Mention three uses and three adverse effects of Furosemide.
8. Mention three drugs used in hypertensive urgency.
9. Mention the uses and adverse effects of Metoclopramide.
10. Pantoprazole.
11. Mention the uses and adverse effects of Insulin
12. Mention three local anaesthetics
13. Mention three uses of Adrenaline
14. Mention three B-Lactum antibiotics
15. Hepatitis B Vaccine.

QP CODE- 5152, SECTION-B, THEORY OF DIALYSIS(RS -2 SCHEME)  
(WRITE IN RED ANSWER BOOK)

I. SHORT NOTES - ANSWER ANY FOUR

4X5 = 20

1. Describe a peritoneal catheter (Types and parts) with a neat labelled diagram.
2. Heparin- Molecular size, types, uses, adverse effects and contraindications.
3. Describe in brief about blood circuit with its sensors.
4. Describe various alarms in HD machine with their significance.
5. Disinfection of haemodialysis machine- types, agents used and indications for disinfection.

II. SHORT ANSWERS

10X3=30

6. Compartments in body fluid composition
7. What is online haemodiafiltration?
8. What is surface cleaning of dialysis machine?
9. What are high flux dialyzers?
10. What is osmosis?
11. Mention levels of consciousness of a patient.
12. What are the types of dialysis catheters?
13. Types of renal failure
14.  $K_{UF}$  (Coefficient of ultrafiltration)
15. What is reverse osmosis?

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KARNATAKA NURSING & PARAMEDICAL SCIENCES EDUCATION (REGULATION) AUTHORITY  
PARAMEDICAL BOARD, BENGALURU  
ANNUAL EXAMINATION, NOVEMBER 2020  
II YEAR DIPLOMA IN DIALYSIS TECHNOLOGY (DDT)

TIME: 1.30 Hrs (RS -2 SCHEME) MAX. MARKS: 100  
9.30AM-11 AM, QP CODE- 5151, SECTION-A, APPLIED PHARMACOLOGY  
(WRITE IN BLUE ANSWER BOOK)

SHORT NOTES - ANSWER ANY FOUR 4 x 5 =20

- 1 Name 5 Antihypertensive agents and write its uses
- 2 Name the Oral hypoglycemic agents
- 3 Drug antagonism
- 4 Write briefly on Atropine
- 5 Write briefly on Insulin

SHORT ANSWERS 10 x 3=30

- 6 Name 3 Bronchodilators
- 7 Name 3 Mucolytic agents
- 8 Name 3 antifungal drugs
- 9 Name 3 Routes of Elimination of Drugs
- 10 Name 3 Local Anaesthetic agents
- 11 Name 3 Sedatives
- 12 Name 3 Anti Histaminic Drugs
- 13 Mention Hormones of Thyroid Gland
- 14 What is Spiranolactone? Mention 1 use and 1 adverse effect
- 15 Therapeutic Index

TIME: 1.30 Hrs, QP CODE- 5152, SECTION-B, THEORY OF DIALYSIS  
11AM-12.30 PM (WRITE IN RED ANSWER BOOK)

SHORT NOTES - ANSWER ANY FOUR 4 x 5=20

- 1 What are AAMI standards for water quality in HD?
- 2 Anatomy of Artificial kidneys (dialyzers) with diagram
- 3 Describe the methods of Reuse of dialyzer and disinfection of dialyzer
- 4 Describe the components of water treatment plant
- 5 Monitoring of patients in Hemodialysis

SHORT ANSWERS 10 x 3=30

- 6 Name anticoagulants (IV and Oral)
- 7 Types of vascular access in HD
- 8 Interdialytic weight gain
- 9 Universal Precautions
- 10 Hardness of water
- 11 Discuss monthly laboratory tests done in hemodialysis patients & their importance
- 12 Describe reverse osmosis
- 13 Washing accessories in Hemodialysis
- 14 Complications of Central Venous Catheter
- 15 Alarms and its importance

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**PARAMEDICAL BOARD, BENGALURU**  
**SUPPLEMENTARY EXAMINATION, JULY 2021**  
**II YEAR DIPLOMA IN DIALYSIS TECHNOLOGY (DDT)**  
**TIME: 1.30 Hrs (RS -2 SCHEME) MAX. MARKS: 100**  
**9.30 am -11 am, QP CODE- 5151, SECTION-A, APPLIED PHARMACOLOGY**  
**(WRITE IN BLUE ANSWER BOOK)**

**SHORT NOTES - ANSWER ANY FOUR**

**4 x 5 =20**

- 1 Describe the mechanism of action and uses of NSAIDs
- 2 Uses and adverse effects of Diazepam
- 3 Write the mechanism of action, uses and adverse effects of Aminoglycosides
- 4 Treatment of Acute severe asthma
- 5 Liquid dosage forms of drugs

**SHORT ANSWERS**

**10 x 3=30**

- 6 Name THREE antiemetics
- 7 Post exposure prophylaxis in HIV
- 8 Write THREE advantages and disadvantages of Oral route of drug administration
- 9 Management of Hypertensive crisis
- 10 Write SIX uses of Corticosteroids
- 11 Hepatitis B vaccine
- 12 Write THREE differences between Heparin and Warfarin
- 13 Name THREE nephrotoxic drugs
- 14 Erythropoietin
- 15 Mention THREE drugs eliminated by dialysis

**TIME: 1.30 Hrs, QP CODE- 5152, SECTION-B, THEORY OF DIALYSIS**  
**11am-12.30 pm (WRITE IN RED ANSWER BOOK)**

**SHORT NOTES - ANSWER ANY FOUR**

**2 x 5=20**

- 1 Peritoneal Dialysis
- 2 Ultra filtration
- 3 Anticoagulation
- 4 Renal function test
- 5 Dialysate

**SHORT ANSWERS**

**9 3=30**

- 6 Vascular access in HD
- 7 Acid concentrate composition
- 8 Steps in storage of dialyser
- 9 Dialyser reuse
- 10 AV fistula failure
- 11 Transmembrane pressure
- 12 Ultrafiltration coefficient of a dialyser
- 13 When to discard dialyser?
- 14 Acute kidney injury
- 15 Osmosis

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PARAMEDICAL BOARD, BENGALURU  
ANNUAL EXAMINATION, NOVEMBER 2021

II YEAR DIPLOMA IN DIALYSIS TECHNOLOGY (DDT)

TIME: 1.30 Hrs (RS -2 SCHEME) MAX. MARKS: 100  
9.30AM-11 AM, QP CODE- 5151, SECTION-A, APPLIED PHARMACOLOGY  
(WRITE IN BLUE ANSWER BOOK)

SHORT NOTES - ANSWER ANY FOUR

4 x 5 =20

- 1 Inhaled Glucocorticoids
- 2 FUROSEMIDE- site of action, uses and adverse effects
- 3 Definition of a) Pharmacokinetics B) Pharmacodynamics
- 4 Adverse effects of Glucocorticoids
- 5 Drug antagonism

SHORT ANSWERS

10 x 3=30

- 6 Essential drug list
- 7 Name any THREE solid and THREE liquid dosage forms
- 8 Name any TWO live attenuated vaccine and ONE killed vaccine
- 9 Name any THREE uses of fluoroquinolones
- 10 Define the term a) Chemotherapy b) Teratogenicity c) Clinical trials
- 11 Mention 3 uses and 3 adverse effects of Adrenaline
- 12 Mention 4 drugs used in the treatment of hypertensive emergencies; write their route of administration
- 13 Name THREE uses of analgesics
- 14 Name THREE techniques of local anesthesia
- 15 Name THREE sources of drugs

TIME: 1.30 Hrs, QP CODE- 5152, SECTION-B, THEORY OF DIALYSIS  
11AM-12.30 PM (WRITE IN RED ANSWER BOOK)

SHORT NOTES - ANSWER ANY FOUR

4 x 5=20

- 1 What are the methods used for cannulation of AV fistulas and grafts? Describe each with a help of a diagram
- 2 What are the methods used for monitoring water treatment systems in a dialysis unit
- 3 Standard dialysate solution
- 4 What are the advantages and disadvantages of Peritoneal dialysis?
- 5 What are the common tests done for monitoring patients on maintenance hemodialysis

SHORT ANSWERS

10 x3=30

- 6 Define hemodiafiltration. Draw circuit of online hemodiafiltration
- 7 Draw CAPD catheter and label the parts
- 8 What are the contraindications for the use of heparin
- 9 Define Diffusion and Osmosis
- 10 Body composition of fluids
- 11 Mention 3 sites for temporary vascular access
- 12 Name 3 vital signs
- 13 Define Ultrapure water
- 14 Name 3 alarms in hemodialysis machine
- 15 Mention 3 Types of vascular access in HD

VIDYA INSTITUTE OF PARA MEDICAL SCIENCES  
(College Code - 342)  
Mysore Road, Malavalli - 571430, Mandya Dist.

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