

(Affiliated to the Tamil Nadu Dr M.G.R Medical University, Chennai)

B. Sc. CARDIOPULMONARY PERFUSION CARE TECHNOLOGY

1411 – PHARMACOLOGY

II YEAR

UNIT I – DIURETICS , ANTIDIURETICS , ACE INHIBITORS (FOR HYPERTENSION)

I. ELABORATE ON

10 MARKS

REFERENCE – THE TAMILNADU DR.M.G.R MEDICAL UNIVERSITY QUESTION PAPER

S.no	Questions	Reference	Bloom's Taxonomy
1	Name the diuretics with a note on their mode of action & side effects.	AUGUST 2012	Understand/Remember
2	Discuss the classification, mechanism of action, and adverse effects of Loop Diuretics . Explain their application in pulmonary edema.	February 2023	Analyze/Evaluate
3	Elaborate on the physiological role of the Renin-Angiotensin-Aldosterone System (RAAS). Explain in detail the mechanism of action and therapeutic uses of ACE inhibitors .	August 2023	Analyze/Apply
4	Classify Diuretics based on their site of action in the renal tubule. Explain the clinical pharmacology, including therapeutic uses and contraindications, of each major class.	April 2024	Analyze/Understand
5	Critically evaluate the role of ACE Inhibitors and Diuretics in the long-term management of Chronic Heart Failure .	February 2022	Evaluate
6	Describe the pharmacology of Vasopressin (Antidiuretic Hormone) . Explain the pathophysiology and	August 2021	Understand/Apply

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S.no	Questions	Reference	Bloom's Taxonomy
	management of Diabetes Insipidus using antidiuretic agents.		
7	Discuss the mechanism of action and clinical implications of major drug interactions involving Thiazide Diuretics and other cardiovascular drugs.	February 2021	Analyze
8	Elaborate on the adverse effect profile of Potassium-sparing Diuretics . Discuss the mechanism of action of Spironolactone and its clinical uses beyond simple diuresis.	April 2020	Analyze/Apply
9	Define Antidiuretic drugs . Discuss in detail the different types of antidiuretic agents (e.g., ADH analogues, V2-receptor antagonists) and their specific clinical indications with drug examples.	August 2019	Understand/Apply
10	Explain the concept of ' Diuretic Resistance .' How is it clinically managed, and what are the principles of sequential nephron blockade ?	February 2018	Analyze/Apply

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S.no	Questions	Reference	Bloom's Taxonomy
1	Write a note on the mechanism and specific adverse effects of Osmotic Diuretics .	August 2024	Understand
2	Explain the ' First-Dose Hypotension ' phenomenon associated with ACE Inhibitors and the necessary precautions.	February 2024	Understand
3	Compare and Contrast Loop Diuretics and Thiazide Diuretics based on their efficacy and clinical use in hypertension.	April 2023	Analyze
4	Write short notes on Angiotensin II Receptor Blockers (ARBs) , including their mechanism and advantage over ACE inhibitors.	August 2022	Understand
5	Explain the management of Syndrome of Inappropriate Antidiuretic Hormone (SIADH) using V2-receptor antagonists (e.g., Tolvaptan).	February 2020	Apply
6	Briefly describe the mechanism of action of Acetazolamide and its primary therapeutic use in conditions other than diuresis.	April 2019	Remember/Understand
7	Enumerate the indications and absolute contraindications for ACE Inhibitor therapy.	August 2018	Remember

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S.no	Questions	Reference	Bloom's Taxonomy
8	Write a note on the side effects of Diuretics that are particularly relevant to patients undergoing Cardiopulmonary Perfusion .	February 2017	Apply
9	Explain the mechanism of action and clinical relevance of Aldosterone Antagonists (e.g., Spironolactone, Eplerenone).	August 2016	Understand
10	Discuss the pharmacological rationale for combining a Diuretic with an ACE Inhibitor in anti-hypertensive therapy.	February 2015	Analyze

III. WRITE SHORT NOTES ON**3 MARKS****REFERENCE – THE TAMILNADU DR.M.G.R MEDICAL UNIVERSITY QUESTION PAPER**

S.no	Questions	Reference	Bloom's Taxonomy
1	Define ACE Inhibitors and give two examples of drugs.	April 2024	Remember
2	Name three important therapeutic uses of Loop Diuretics (e.g., Furosemide).	August 2024	Remember
3	What is the mechanism of action of Furosemide ?	February 2023	Remember
4	Define Diabetes Insipidus and name one Antidiuretic drug used for its treatment.	August 2023	Remember
5	What is Angioedema , and why is it a life-	February	Understand

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S.no	Questions	Reference	Bloom's Taxonomy
	threatening side effect of ACE Inhibitors ?	2022	
6	Enumerate three common metabolic adverse effects of Thiazide Diuretics .	August 2022	Remember
7	Differentiate between a diuretic and an antidiuretic agent with respect to their action on urine volume.	February 2021	Understand
8	What is the therapeutic indication and route of administration for the Osmotic Diuretic Mannitol ?	April 2021	Remember
9	Write a short note on the mechanism of action of the antidiuretic drug Desmopressin .	August 2020	Remember
10	Name two ACE Inhibitors and two Angiotensin Receptor Blockers (ARBs) .	February 2019	Remember
11	Briefly explain why Potassium-Sparing Diuretics are often combined with Thiazides or Loop Diuretics.	April 2019	Understand
12	What are the clinical uses of Aldosterone Antagonists beyond their diuretic effect?	August 2018	Remember
13	Define the term ' Hyperkalemia ' and name a drug from the Diuretics unit that can cause it.	February 2017	Understand
14	Give two absolute contraindications for the use of ACE Inhibitors in a patient.	August 2016	Remember
15	What are Carbonic Anhydrase Inhibitors ? Name one drug from this class.	February 2015	Understand

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