

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

B. Sc. CARDIOPULMONARY PERFUSION CARE TECHNOLOGY

1411 – PHARMACOLOGY

II YEAR

UNIT IV – DRUGS FOR UTI

I. ELABORATE ON

10 MARKS

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

S.no	Questions	Reference	Bloom's Taxonomy
1	Classify the drugs used in the treatment of Urinary Tract Infections. Discuss in detail the mechanism of action, antimicrobial spectrum, and major adverse effects of Fluoroquinolones (e.g., Ciprofloxacin) .	AUGUST 2026	Analyze
2	Compare and contrast the pharmacological management of Uncomplicated UTI versus Complicated Pyelonephritis . Detail the role and dosage of the first-line and second-line drugs used in each case.	APRIL 2025	Evaluate
3	Discuss the detailed pharmacology of Co-trimoxazole (Trimethoprim-Sulfamethoxazole) . Explain its synergistic mechanism of action, therapeutic uses, and major contraindications.	FEBRUARY 2024	Analyze
4	Elaborate on the definition, indications, drug selection, and regimen for Long-term UTI Prophylaxis . Detail the pharmacology of the agents commonly used for this purpose (e.g., Nitrofurantoin).	AUGUST 2024	Apply
5	Describe the special considerations and the specific drugs of choice for treating Urinary Tract Infections in Pregnant Women . Justify the exclusion of certain drugs like Fluoroquinolones.	APRIL 2023	Evaluate

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S.no	Questions	Reference	Bloom's Taxonomy
6	Discuss the mechanism of action, pharmacokinetics, and clinical indications for the use of Urinary Antiseptics (e.g., Nitrofurantoin, Methenamine) . Detail their limitations in systemic infections.	FEBRUARY 2023	Analyze
7	Discuss the mechanism of action, spectrum, and role of newer agents like Fosfomycin and Beta-Lactam antibiotics in the management of resistant UTI.	AUGUST 2023	Analyze
8	Elaborate on the mechanisms of bacterial resistance to common UTI drugs like Ampicillin and Co-trimoxazole . Discuss how empirical therapy guidelines address this issue.	APRIL 2022	Understand
9	Describe the detailed mechanism of action of Methenamine . Explain the prerequisite conditions (urine pH) necessary for its efficacy and its primary clinical application.	FEBRUARY 2021	Analyze
10	Discuss the common adverse effects of Fluoroquinolones (e.g., tendon rupture, CNS effects) and the risk factors that necessitate caution during their prescription.	AUGUST 2020	Apply

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II.WRITE NOTES ON

5 MARKS

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

S.no	Questions	Reference	Bloom's Taxonomy
1	Write notes on the mechanism of action and dose regimen of Fosfomycin .	APRIL 2024	Understand
2	Discuss the clinical indications and side effects of Trimethoprim alone.	AUGUST 2022	Understand
3	Write notes on the mechanism and adverse effects of Nitrofurantoin .	FEBRUARY 2022	Understand
4	Differentiate between the clinical utility of Ciprofloxacin and Ofloxacin .	APRIL 2021	Analyze
5	Discuss the role of Urinary Alkalinizers and Acidifiers in UTI management.	AUGUST 2019	Understand
6	Write notes on the management of an acute, uncomplicated Cystitis in a non-pregnant woman.	FEBRUARY 2020	Apply
7	Explain the significance of the folate pathway in the synergistic action of Co-trimoxazole.	APRIL 2020	Understand
8	Write notes on the mechanism and use of Urinary Analgesics (e.g., Phenazopyridine).	AUGUST 2018	Apply
9	Discuss the clinical use and adverse effects of Norfloxacin .	FEBRUARY 2019	Understand
10	Briefly explain why Tetracyclines are rarely used for UTI now.	APRIL 2018	Understand

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S.no	Questions	Reference	Bloom's Taxonomy
1	Name two Urinary Antiseptics .	AUGUST 2026	Remember
2	Give two first-line drugs for uncomplicated UTI .	APRIL 2025	Remember
3	What is the major side effect of Phenazopyridine ?	FEBRUARY 2024	Remember
4	State the drug of choice for UTI in the first trimester of pregnancy .	AUGUST 2024	Remember
5	Name the specific enzyme inhibited by Trimethoprim .	APRIL 2023	Remember
6	Define an Uncomplicated UTI .	FEBRUARY 2023	Remember
7	Give two serious toxicities of Sulfonamides .	AUGUST 2022	Remember
8	State the mechanism of action of Ciprofloxacin .	APRIL 2022	Understand
9	What is the advantage of a single-dose regimen for UTI?	FEBRUARY 2021	Understand
10	Name one drug used for UTI Prophylaxis in children.	AUGUST 2021	Remember
11	State two reasons why Methenamine is not effective in Pyelonephritis.	APRIL 2020	Understand
12	What is the major contraindication for Nitrofurantoin use?	FEBRUARY 2020	Remember

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S.no	Questions	Reference	Bloom's Taxonomy
13	Which common drug is contraindicated in patients with G6PD deficiency ?	AUGUST 2019	Remember
14	Give two clinical uses of Ceftriaxone in UTI management.	APRIL 2018	Remember
15	State the mechanism of action of Sulfamethoxazole .	FEBRUARY 2017	Understand