

**SHREE H.N SHUKLA INSTITUTE
OF PHARMACEUTICAL EDUCATION
AND RESEARCH**



Question Bank

B.PHARM

(SEMESTER –VI)

SUBJECT NAME: MEDICINAL CHEMISTRY - III

SUBJECT CODE: BP601TP

UNIT 1- MEDICINAL CHEMISTRY

1	a.) Write mechanism of action, uses and adverse effects of penicillin b.) Write detail SAR of Cephalosporin. c.) Write short notes on Aminoglycosides antibiotics.
2	a.) Write detail SAR of Penicillins. (b) Write short notes on cephalosporin antibiotic.
3	(a) What are β -lactam antibiotics? Discuss carbapenams.
4	(a) What are cephalosporins? How they differ from penicillins? Give SAR of Cephalosporins. (b) Classify Penicillins with examples on the basis of mechanism of action. Why penicillin is not active against penicillinase secreting microorganisms?
5	(a) Classify β -lactam antibiotics and discuss application of Clavulanic acid. (b) Discuss degradation of Penicillin and write short note on Penicillinase-resistant Penicillins.
6	(a) Discuss degradation of penicillin in detail. (b) Write down SAR of tetracyclines

UNIT 2

1.	(a) Discuss the following terms: Fanconi's Syndrome, Gray Baby Syndrome. (b) Discuss the SAR of tetracyclines with appropriate examples. Discuss epimerization in this class of antibiotics
2.	(a) Briefly explain Antiviral agents. (b) Write synthesis of Primaquin and chloroquine.
3	Explain life cycle of Malarial parasite and drug acting on each stage of life cycle.
4	Give the scheme of synthesis of Chloramphenicol and discuss its SAR.
5	Write mechanism of action, chemistry and uses of Macrolide antibiotic.

UNIT 3

1	Briefly explain SAR of Fluroquinolones.
2	What are antitubercular agents? Briefly explain first line antitubercular agents.
3	Write the synthesis of Isoniazid with nomenclature.
4	Write about the drug agents working against HIV.
5	Explain Antiviral agents in detail.

UNIT 4

1	Write mechanism of action, uses and side effect of sulfonamide in detail.
2	Show which biochemical difference of fungi is exploited in anti fungal therapy and write a note on the Azoles with apt examples.
3	What is amoebiasis? How anti amoebics act? Give synthesis of Metronidazole.
4	Write short note on Anthelmintics.
5	Write a SAR of Sulphonamide. Give Synthesis of Dapsone.

UNIT 5

1	Write a note on molecular modeling strategies and applications
2	What is a lead molecule? Briefly explain lead optimization techniques.
3	Explain in detail Hansch linear free energy relationship model in drug design.
4	Discuss the topless decision tree and the free Wilson approach to QSAR.
5	Write a note on Combinatorial chemistry.