

## PHARMACOLOGY-I

**PLACEMENT: III SEMESTER**

**THEORY: 1 Credit (20 hours)**

**DESCRIPTION:** This course is designed to enable students to acquire understanding of Pharmacodynamics, Pharmacokinetics, principles of therapeutics and nursing implications.

**COMPETENCIES:** On completion of the course, the students will be able to

1. Describe pharmacodynamics and pharmacokinetics.
2. Review the principles of drug calculation and administration.
3. Explain the commonly used antiseptics and disinfectants.
4. Describe the pharmacology of drugs acting on the GI system.
5. Describe the pharmacology of drugs acting on the respiratory system.
6. Describe drugs used in the treatment of cardiovascular and blood disorders.
7. Explain the drugs used in the treatment of endocrine system disorders.
8. Describe the drugs acting on skin and drugs used to treat communicable diseases.

## COURSE OUTLINE

### T–Theory

Unit	Time (Hrs)	Learning Outcomes	Content	Teaching/Learning Activities	Assessment Methods
I	3(T)	Describe Pharmacodynamics, Pharmacokinetics, Classification, principles of administration of drugs	<b>Introduction to Pharmacology</b> <ul style="list-style-type: none"> <li>• Definitions &amp; Branches</li> <li>• Nature &amp; Sources of drugs</li> <li>• Dosage Forms and Routes of drug administration</li> <li>• Terminology used</li> <li>• Classification, Abbreviations, Prescription, Drug Calculation, Weights and Measures</li> <li>• <i>Pharmacodynamics</i>: Actions, Drug Antagonism, Synergism, Tolerance, Receptors, Therapeutic, adverse, toxic effects, pharmacovigilance</li> <li>• <i>Pharmacokinetics</i>: Absorption, Bioavailability, Distribution, Metabolism, Interaction, Excretion</li> <li>• Review: Principles of drug administration and treatment individualization                             <ul style="list-style-type: none"> <li>○ Factors affecting dose, route etc.</li> </ul> </li> <li>• Indian Pharmacopoeia: Legal Issues, Drug Laws, Schedule Drugs</li> <li>• Rational Use of Drugs</li> <li>• Principles of Therapeutics</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture cum Discussion</li> <li>• Guided reading and written assignments on schedule drugs</li> </ul>	<ul style="list-style-type: none"> <li>• Short answer</li> <li>• Objective type</li> <li>• Assessment of assignments</li> </ul>
II	1(T)	Describe antiseptics, and disinfectant & nurse's responsibilities	<b>Pharmacology of commonly used antiseptics and disinfectants</b> <ul style="list-style-type: none"> <li>• Antiseptics and Disinfectants</li> <li>• Composition, action, dosage, route, indications, contraindications, Drug interactions, side effects, adverse effects, toxicity and role of nurse</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture cum Discussion</li> <li>• Drug study/presentation</li> </ul>	<ul style="list-style-type: none"> <li>• Short answer</li> <li>• Objective type</li> </ul>
III	2(T)	Describe drugs acting on gastrointestinal system & nurse's responsibilities	<b>Drugs acting on G.I. system</b> <ul style="list-style-type: none"> <li>• Pharmacology of commonly used drugs                             <ul style="list-style-type: none"> <li>○ Emetics and Antiemetics</li> <li>○ Laxatives and Purgatives</li> <li>○ Antacids and antipepticulcer drugs</li> <li>○ Anti-diarrhoeals – Fluid and electrolyte therapy, Furazolidone, dicyclomine</li> </ul> </li> <li>• Composition, action, dosage, route, indications, contraindications, drug interactions, side effects, adverse effects, toxicity and role of nurse</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture cum Discussion</li> <li>• Drug study/presentation</li> </ul>	<ul style="list-style-type: none"> <li>• Short answer</li> <li>• Objective type</li> </ul>

IV	2(T)	Describe drugs acting on respiratory system & nurse's responsibilities	<b>Drugs acting on respiratory system</b> <ul style="list-style-type: none"> <li>• Pharmacology of commonly used <ul style="list-style-type: none"> <li>○ Antiasthmatics – Bronchodilators (Salbutamol inhalers)</li> <li>○ Decongestants</li> <li>○ Expectorants, Antitussives and Mucolytics</li> <li>○ Broncho-constrictors and Antihistamines</li> </ul> </li> <li>• Composition, action, dosage, route, indications, contraindications, drug interactions, side effects, adverse effects, toxicity and role of nurse</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture cum Discussion</li> <li>• Drug study/presentation</li> </ul>	<ul style="list-style-type: none"> <li>• Short answer</li> <li>• Objective type</li> </ul>
V	4(T)	Describe drugs used on cardio-vascular system & nurse's responsibilities	<b>Drugs used in treatment of Cardiovascular system and blood disorders</b> <ul style="list-style-type: none"> <li>• Haematinics, &amp; treatment of anaemia and antiadrenergics</li> <li>• Cholinergic and anticholinergic</li> <li>• Adrenergic Drugs for CHF &amp; vasodilators</li> <li>• Antianginals</li> <li>• Antiarrhythmics</li> <li>• Antihypertensives</li> <li>• Coagulants &amp; Anticoagulants</li> <li>• Antiplatelets &amp; thrombolytics</li> <li>• Hypolipidemics</li> <li>• Plasma expanders &amp; treatment of shock</li> <li>• Drugs used to treat blood disorders</li> <li>• Composition, action, dosage, route, indications, contraindications, drug interactions, side effects, adverse effects, toxicity and role of nurse</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture cum Discussion</li> <li>• Drug study/presentation</li> </ul>	<ul style="list-style-type: none"> <li>• Short answer</li> <li>• Objective type</li> </ul>
VI	2(T)	Describe the drugs used in treatment of endocrine system disorders	<b>Drugs used in treatment of endocrine system disorders</b> <ul style="list-style-type: none"> <li>• Insulin &amp; oral hypoglycemics</li> <li>• Thyroid and anti-thyroid drugs</li> <li>• Steroids <ul style="list-style-type: none"> <li>○ Corticosteroids</li> <li>○ Anabolic steroids</li> </ul> </li> <li>• Calcitonin, parathormone, vitamin D<sub>3</sub>, calcium metabolism <ul style="list-style-type: none"> <li>○ Calcium salts</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Lecture cum Discussion</li> <li>• Drug study/presentation</li> </ul>	<ul style="list-style-type: none"> <li>• Short answer</li> <li>• Objective type</li> </ul>

<b>VII</b>	1(T)	Describe drugs used in skin diseases & nurse's responsibilities	<b>Drugs used in treatment of integumentary system</b> <ul style="list-style-type: none"> <li>• Antihistaminics and antipruritics</li> <li>• Topical applications for skin- Benzylbenzoate, Gamma BHC, Clotrimazole, Miconazole, Silver Sulphadiazine (burns)</li> <li>• Composition, action, dosage, route, indications, contraindications, drug interactions, side effects, adverse effects, toxicity and role of nurse</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture cum Discussion</li> <li>• Drug study/presentation</li> </ul>	<ul style="list-style-type: none"> <li>• Short answer</li> <li>• Objective type</li> </ul>
<b>VIII</b>	5(T)	Explain drug therapy/chemotherapy of specific infections & infestations & nurse's responsibilities	<b>Drugs used in treatment of communicable diseases (common infections, infestations)</b> <ul style="list-style-type: none"> <li>• General Principles for use of Antimicrobials</li> <li>• Pharmacology of commonly used drugs: <ul style="list-style-type: none"> <li>○ Penicillin, Cephalosporins, Aminoglycosides, Macrolide &amp; broad spectrum antibiotics, Sulfonamides, quinolones, Misc. antimicrobials</li> </ul> </li> <li>• Anaerobic infections</li> <li>• Antitubercular drugs,</li> <li>• Antileprosy drugs</li> <li>• Antimalarials</li> <li>• Antiretroviral drugs</li> <li>• Antiviral agents</li> <li>• Anthelmintics, Antiscabies agents</li> <li>• Antifungal agents</li> <li>• Composition, action, dosage, route, indications, contraindications, Drug interactions, side effects, adverse effects, toxicity and role of nurse</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture cum Discussion</li> <li>• Drug study/presentation</li> </ul>	<ul style="list-style-type: none"> <li>• Short answer</li> <li>• Objective type</li> </ul>

### DISTRIBUTION OF TEACHING HOURS

STRATEGY		Teaching hours
Didactic 1 Credit (20 hours)	Lectures	18
	Tutorial	2
	Total hours	1 Credit 20 hours

### TOPICS & OUTCOMES IN NURSING FOUNDATION

Subjects	Number of Themes	Number of outcomes
Pharmacology	08	27

### DISTRIBUTION OF THEORY HOURS

S.N.	Theme	Topics	Teaching hrs
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1	Introduction to Pharmacology	Introduction to Pharmacology	3Hrs
2	Pharmacology of commonly used antiseptics and disinfectants	Pharmacology of commonly used antiseptics and disinfectants	1Hrs
3	Drugs acting on G.I. system	Drugs acting on G.I. system	2Hrs
4	Drugs acting on respiratory system	Drugs acting on respiratory system	2Hrs
5	Drugs used in treatment of Cardiovascular system and blood disorders	Drugs used in treatment of Cardiovascular system and blood disorders	4Hrs
6	Drugs used in treatment of endocrine system disorders	Drugs used in treatment of endocrine system disorders	2Hrs
7	Drugs used in treatment of integumentary system	Drugs used in treatment of integumentary system	1Hrs
8	Drugs used in treatment of communicable diseases (common infections, infestations)	Drugs used in treatment of communicable diseases (common infections, infestations)	5Hrs
<b>Total hours</b>			<b>20 hours</b> (1 Credit)



## PHARMACOLOGY

Theme and total hours allotted	Objectives	Topic	Code No	Competency	core competency		Non core competency	
					Must Know (60%)	Desirable to Know (30%)	Nice to Know (10%)	
Unit I – Introduction to Pharmacology (3Hrs)	At the end of unit student are able to <b>Knowledge:</b> Understand and explain various sources and Pharmacodynamics and pharmacokinetics of different groups of drugs. <b>Skill:</b> Practice principles of therapeutics and administer different groups of drugs. <b>Attitude:</b> Know the legal implications of drug management.	Introduction to Pharmacology	PHAR(I)205: IIISEM 1.1	Describe pharmacology with reference to definition and its branches and, Explain nature and sources of drug, dosage, form and routes of drug administration	<b>Introduction to Pharmacology:</b> <ul style="list-style-type: none"> <li>• Definitions&amp;Branches</li> <li>• Nature&amp;Sourcesofdrugs</li> <li>• DosageFormsandRoutesofdrug administration</li> </ul>			½ Hrs
			PHAR(I)205: IIISEM 1.2	State terminology used in pharmacology and explain drug classification, Abbreviations,Prescription,DrugCalculation,WeightsandMeasures	<ul style="list-style-type: none"> <li>• Terminologyused</li> <li>• Classification, Abbreviations,Prescription,DrugCalculation,WeightsandMeasures</li> </ul>			½ Hrs
			PHAR(I)205: IIISEM 1.3	DescribePharmacodynamics and Pharmacokinetics	<ul style="list-style-type: none"> <li>• <i>Pharmacodynamics:</i> Actions, DrugAntagonism, Synergism, Tolerance,Receptors, Therapeutic,adverse,toxic effects,pharmacovigilance</li> <li>• <i>Pharmacokinetics:</i> Absorption,Bioavailability, Distribution,Metabolism,Interaction,Excretion (2 Hr)</li> </ul>			1 Hr.
			PHAR(I)205: IIISEM 1.4	Describe principles of drug administration and treatment individualized action, factors affecting dose and route		<ul style="list-style-type: none"> <li>• Review: Principles of drugadministration andtreatmentindividualization Factors affectingdose,rout etc.</li> </ul>		½ Hrs

			PHAR(I)205: III SEM 1.5	Explain Indian Pharmacopoeia- Legal Issues, Drug Laws, Schedule Drug, Rational Use of Drugs and Principles of Therapeutics		<ul style="list-style-type: none"> <li>Indian Pharmacopoeia: Legal Issues, Drug Laws, Schedule Drugs</li> <li>Rational Use of Drugs Principles of Therapeutics (1 Hr)</li> </ul>		½ Hrs
<b>Unit II – Pharmacology of commonly used antiseptics and disinfectants</b>  (1Hrs)	At the end of unit student are able to <b>Knowledge:</b> Understand and explain the actions of commonly used antiseptics, insecticides and disinfectants. <b>Skill:</b> Use disinfectants, insecticides and antiseptics judiciously. <b>Attitude:</b> Prevent misuse of these agents in clinical set up.	<b>Pharmacology of commonly used antiseptics and disinfectants</b>	PHAR(I)205: III SEM 2.1	Describe antiseptics, and disinfectant & nurse's responsibilities	<b>Pharmacology of commonly used antiseptics and disinfectants</b> <ul style="list-style-type: none"> <li>Antiseptics and Disinfectants</li> <li>Composition, action, dosage, route, indications, contraindications, Drug interactions, side effects, adverse effects, toxicity and role of nurse (1 Hr)</li> </ul>			1 Hr
<b>Unit III Drugs acting on G.I. system</b>  (2Hrs)	At the end of unit student are able to <b>Knowledge:</b> Understand and explain various drugs used in the treatment of G. I. disorders. <b>Skill:</b> Administer drugs for all G. I. disorders accurately. <b>Attitude:</b> Observe the clients for adverse effects and therapeutic effects of the drugs used for G. I. disorders.	<b>Drugs acting on G.I. system</b>	PHAR(I)205: III SEM 3.1	Explain emetics, antiemetics and antidiarrheal drugs and nurse's responsibilities	<b>Drugs acting on G.I. system</b> <ul style="list-style-type: none"> <li>Pharmacology of commonly used drugs <ul style="list-style-type: none"> <li>Emetics and Antiemetics</li> <li>Anti-diarrhoeals – Fluid and electrolyte therapy, Furazolidone, dicyclomine</li> </ul> </li> <li>Composition, action, dosage, route, indications, contraindications, drug interactions, side effects, adverse effects, toxicity and role of nurse (1 Hr)</li> </ul>			1 Hr
			PHAR(I)205: III SEM 3.2	Explain antacids, laxatives/purgatives and		<ul style="list-style-type: none"> <li>Laxatives and Purg</li> </ul>		½ Hr



				nurse's responsibilities		atives		
			PHAR(I)205: III SEM 3.3	Explain antacids and antipeptic ulcer drugs and nurse's responsibilities		<ul style="list-style-type: none"> <li>• Antacids and antipeptic ulcer drugs (1 Hr)</li> </ul>		½ Hr
<b>Unit IV</b> <b>Drugs acting on respiratory system</b> (2Hrs)	At the end of unit student are able to <b>Knowledge:</b> Understand and explain the drugs used in the treatment of disorders of respiratory tract. <b>Skill:</b> Administer drugs in all conditions of respiratory tract. <b>Attitude:</b> Observe the clients for adverse effects and therapeutic effects of the drugs used in the treatment of disorders of respiratory tract.	<b>Drugs acting on respiratory system</b>	PHAR(I)205: III SEM 4.1	Explain antiasthmatics- bronchodilator, expectorant, antitussive and Mucolytics Agents and nurse's responsibilities	<b>Drugs acting on respiratory system</b> <ul style="list-style-type: none"> <li>• Pharmacology of commonly used               <ul style="list-style-type: none"> <li>○ Antiasthmatics- Bronchodilators (Salbutamol inhalers)</li> <li>○ Expectorants, Antitussive and Mucolytics</li> </ul> </li> <li>• Composition, action, dosage, route, indications, contraindications, drug interactions, side effects, adverse effects toxicity and role of nurse (1 Hr)</li> </ul>			1Hr
			PHAR(I)205: III SEM 4.2	Describe Decongestants, broncho-constrictor and antihistamines and nurse's responsibilities	<ul style="list-style-type: none"> <li>• Decongestants Broncho-constrictors and Antihistamines (1 Hr)</li> </ul>		1Hr	
<b>Unit V</b> <b>Drugs used in treatment of Cardiovascular system and blood disorders</b> (4Hrs)	At the end of unit student are able to <b>Knowledge:</b> Understand and explain therapeutic agents used in cardiovascular disorders. <b>Skill:</b> Administer cardiovascular drugs correctly. <b>Attitude:</b> Observe the clients for adverse effects and therapeutic effects of the cardiovascular drugs in different disease conditions.	<b>Drugs used in treatment of Cardiovascular system and blood disorders</b>	PHAR(I)205: III SEM 5.1	Explain Antianginals, Antiarrhythmics and antihypertensive drugs and nurse's responsibilities	<b>Drugs used in treatment of Cardiovascular system and blood disorders</b> <ul style="list-style-type: none"> <li>• Antianginals</li> <li>• Antiarrhythmics</li> <li>• Antihypertensives</li> </ul>			1Hr
			PHAR(I)205: III SEM 5.2	Describe Coagulants & Anticoagulants, Antiplatelets & thrombolytics and Hypolipidemics and nurse's responsibilities	<ul style="list-style-type: none"> <li>• Coagulants &amp; Anticoagulants</li> <li>• Antiplatelets &amp; thrombolytics</li> <li>• Hypolipidemics</li> </ul>		1Hr	

					<ul style="list-style-type: none"> <li>• Composition, action, dosage, route, indications, contraindications, drug interactions, side effects, adverse effects, toxicity and role of nurse</li> </ul> (2 Hr)		
			PHAR(I)205: IISEM 5.3	Describe Haematinics, & treatment of anaemia and antiadrenergics, Cholinergic and anticholinergic and Adrenergic Drugs for CHF & vasodilators and nurse's responsibilities		<ul style="list-style-type: none"> <li>• Haematinics, &amp; treatment of anaemia and antiadrenergics</li> <li>Cholinergic and anticholinergic</li> <li>Adrenergic Drugs for CHF &amp; vasodilators</li> </ul> (1 Hr)	1 Hr
			PHAR(I)205: IISEM 5.4	Plasma expanders & treatment of shock and Drugs used to treat blood disorders and nurse's responsibilities		<ul style="list-style-type: none"> <li>• Plasma expanders &amp; treatment of shock</li> <li>• Drugs used to treat blood disorders</li> </ul> (1 Hr)	1 Hr
<b>Unit VI</b> <b>Drugs used in treatment of endocrine system disorders</b> (2 Hrs)	At the end of unit student are able to <b>Knowledge:</b> Understand and explain drugs used in endocrine disorders. <b>Skill:</b> Administer different drugs used in endocrinal diseases	<b>Drugs used in treatment of endocrine system disorders</b>	PHAR(I)205: IISEM 6.1	Describe Insulin & oral hypoglycemic, Thyroid and anti-thyroid drugs and nurse's responsibilities	<b>Drugs used in treatment of endocrine system disorders</b> <ul style="list-style-type: none"> <li>• Insulin &amp; oral hypoglycemic</li> <li>• Thyroid and anti-thyroid drugs</li> </ul>		½ Hr

	<b>Attitude:</b> Observe the clients for adverse effects and therapeutic effects of the drugs used in endocrine disorders.		PHAR(I)205: IIISEM 6.2	Explain Steroids- Corticosteroids and Anabolicsteroids and nurse's responsibilities	<ul style="list-style-type: none"> <li>• Steroids <ul style="list-style-type: none"> <li>oCorticosteroids</li> <li>oAnabolicsteroids</li> </ul> </li> </ul> (1 Hr)			½ Hr
			PHAR(I)205: IIISEM 6.3	Explain Calcitonin,parathormone,vita minD3,ad nurse's responsibilities		Calcitonin,parathormo ne,vitaminD3,		½ Hr
			PHAR(I)205: IIISEM 6.4	Explain calciummetabolismCalciumsa lts and nurse's responsibilities		calciummetabolism oCalciumsalts		½ Hr
<b>Unit VII</b> <b>Drugs used in treatment of integumentary system</b> <b>(1Hrs)</b>	At the end of unit student are able to <b>Knowledge:</b> Understand and explain various agents used on skin <b>Skill:</b> Administer medication correctly on skin. <b>Attitude:</b> Observe the clients for adverse effects and therapeutic effects of the skin application.	<b>Drugs used in treatment of Integumentary system</b>	PHAR(I)205: IIISEM 7.1	Explain antihistaminics, antipruritics used in skin diseases and nurse's responsibilities	<b>Drugs used in treatment of integumentary system</b> <ul style="list-style-type: none"> <li>• Antihistaminics and antipruritics</li> </ul>			½ Hr
			PHAR(I)205: IIISEM 7.2	Describe drugs used for topical application for skin and nurse's responsibilities	<ul style="list-style-type: none"> <li>• Topical applications for skin-Benzylbenzoate, Gamma BHC, Clotrimazole, Miconazole, Silver Sulphadiazine (burns)</li> </ul> Composition, action, dosage, route, indications, contraindications, drug interactions, side effects, adverse effect toxicity and role of nurse (1 Hr)			½ Hr

<b>Unit VIII</b> <b>Drugs used in treatment of communicable diseases (common infections, infestations)</b> <b>(5Hrs)</b>	At the end of unit student are able to; <b>Knowledge:</b> Understand and explain different agents used in treatment of communicable diseases, their action and effects on clients.  <b>Skill:</b> Administer agents used in treatment of communicable diseases correctly.  <b>Attitude:</b> Observe the clients for adverse effects and therapeutic effects of the agents in different communicable disease conditions.	<b>Drugs used in treatment of communicable diseases (common infections, infestations)</b>	PHAR(I)205: IIISEM 8.1	Explain general principles for the use of antimicrobials	<b>Drugs used in treatment of communicable diseases (common infections, infestations)</b>  <ul style="list-style-type: none"> <li>• General Principles for use of Antimicrobials</li> </ul>			½ Hr
			PHAR(I)205: IIISEM 8.2	Describe Pharmacology of Penicillin, Cephalosporin's, Aminoglycosides, Macrolide & broad spectrum antibiotics,	<ul style="list-style-type: none"> <li>• Pharmacology of commonly used drugs:</li> <li>• o Penicillin, Cephalosporin's, Aminoglycosides, Macrolide &amp; broad spectrum antibiotics,</li> </ul>			1 Hr
			PHAR(I)205: IIISEM 8.3	Describe Pharmacology of Sulfonamides, quinolones, Misc. antimicrobials	Sulfonamides, quinolones, Misc. antimicrobials			½ Hr
			PHAR(I)205: IIISEM 8.4	Explain drugs used in Anaerobic infections, Antitubercular drugs, and Antileprosy drugs	<ul style="list-style-type: none"> <li>• Anaerobic infections</li> <li>• Antitubercular drugs,</li> <li>• Antileprosy drugs</li> </ul> Composition, action, dosage, route, indications, contraindications, Drug interactions, side effects, adverse effects, toxicity and role of nurse (3 Hr)			1 Hr

			PHAR(I)205: IIISEM 8.5	Describe Antimalarials, Antiretroviral drugs and Antiviral agents		<ul style="list-style-type: none"> <li>• Antimalarials</li> <li>• Antiretroviral drugs</li> <li>• Antiviral agents (1 Hr)</li> </ul>		1 Hr
			PHAR(I)205: IIISEM 8.6	Explain Anthelmintics, Antiscabies agents and Antifungal agents		<ul style="list-style-type: none"> <li>• Anthelmintics, Antiscabies agents</li> <li>• Antifungal agents (1 Hr)</li> </ul>		1 Hr.

**Modified Tutorials (2 Hours)**

Sr. No	Comp. no	TOPIC	Domain	T-L Method	Teaching Hrs
1.	PHAR(I)205: III SEM 1.1	Routes of drug administration	K,S	Tutorials	1 Hour
2.	PHAR(I)205: III SEM 2.1	Antiseptics and Disinfectants	K,S	Tutorials	1 Hour

**TEACHING STRATEGY:**

Total Hours: 20

Theory Hours: 20

**Theory****Continuous Assessment: 10 Marks**

Sr. No	Assignments	Percentage of Attendance required	Allotted marks	Total Marks for attendance
1	Attendance	95-100%	2	2 marks
		90-94%	1.5	
		85-89%	1	
		80-84%	0.5	
		<80%	0	
		Number of assignments required	Marks	Total Marks allotted
2.i	Written Assignment	2	1X10	10
ii	Written assignment		1X10	10
3.i	Seminar/Individual presentation on schedule drugs	2	1x6	6
ii	Microteaching		1x6	6
4	Group work/Work/Report/Drug study/presentation	1	1x6	6
Total				30/3=10Marks

## **Formative Assessment**

### **1. Sessional Examinations: Theory: I**

### **2. Sessional Examinations: Theory: II**

#### **LIST OF RECOMMENDED BOOKS:**

- Dr. S.K. Srivastava, Dr. Rohan Srivastava: Pharmacology for B.Sc. Nursing APC publication, 2020
- Satoskar, BhandarkarAlnapure: Pharmacology and Pharmacotherapeutics. Popular Prakashan, Mumbai
- M. M. Das : Pharmacology, Books and Allied
- Linda, Skidmore Roth: Mosby's 2000 Nursing Drug Reference.
- Ramesh Karnegan: First Aid to Pharmacology for Undergraduates.
- K. D. Tripathi : Essentials of Medical Pharmacology
- Govani and Hayes ; Drugs and Nursing Implications
- Rodman and Smith: Clinical Pharmacology in Nursing.
- Richard A. Lehne ; Pharmacology for Nursing Care
- Lalit Mishra: Drug Today. Lorina Publications, New Delhi