GUJARAT TECHNOLOGICAL UNIVERSITY

B.Pharm

SEMESTER: VII

Subject Name: Pharmacology and Pharmacotherapeutics – III
Subject Code: 2270004

Teaching Scheme				Evaluation Scheme			
Theory	Tutorial	Practical	Total	Theory		Practical	
				External	Internal	External	Internal
3	0	3	6	80	20	80	20

Theory

Sr No	Course Contents	Total Hrs
1.	**Chemotherapy**	**(21)**
	General principles of chemotherapy- definition, classification, problems arising with the use of antimicrobial agents, choice of antimicrobial agents, combined use of antimicrobials, disadvantages of antimicrobial combinations, prophylactic use of antimicrobials, failure of antimicrobial therapy	3
	Classification, antibacterial spectrum, mechanism of action, mechanism of resistance, pharmacokinetics, adverse effects, uses, drug interactions of the following:	
	• Sulfonamides, cotrimoxazole, Quinolones,	2
	• Beta lactam antibiotics (penicillin, cephalosporins, monobactam, carbapenem, beta lactamase inhibitors),	3
	• Macrolides, Lincosamide, Glycopeptide,	2
	• Tetracycline and Chloramphenicol	2
	• Aminoglycoside antibiotics	1
	• Antifungal drugs	2
	• Antiviral drugs	2
	• Anthelmintics including antifilarial drugs	1
	• Anticancer drugs	3
2	**Definition, epidemiology, etiology, pathophysiology, signs and symptoms, diagnosis, complications, treatment and management of following diseases/conditions:**	**(24)**
	• Tuberculosis	2
	• Leprosy	1
	• Malaria, Dengue, Chikunguniya	4
	• Amoebiasis	1
	• Urinary Tract Infections	2
	• Enteric Infections	1
	• Meningitis	1
	• Respiratory Tract Infections : Influenza A,B, H1N1, H5N1, SARS	2
	• Leptospirosis	1
	• Syphillis and Gonorrhea	1
	• Leishmaniasis and Congofever	2
	• Herpes and HIV Infections	2
		1

	• Leukemia • Lymphomas • Breast Cancer, Cervical Cancer and Prostate Cancer	2

Practical – 22700P4

Sr. No.	Course Contents
	Case studies (questions based on history, etiology, symptoms, investigations, medication, adverse effects, drug interactions, pharmacists' advice)
1.	To evaluate case study of bacterial infection (minimum 3 cases)
2	To evaluate case study of cancer (minimum 2 cases) and protozoal infections (2 cases)
3	To evaluate case study of viral infection (minimum 3 cases)
4	To audit given prescription for format of prescription, essentiality and rationality and suggest carry home message (three prescriptions- ANS / GIT/ Respiratory)
5	To audit given prescription for format of prescription, essentiality and rationality and suggest carry home message (three p rescriptions- Anemia/ CNS/ Infectious diseases)
6	To suggest appropriate parenteral nutrition for hospitalized patients after proper nutritional assessments in different conditions, and enlist importance of medications necessary in a pharmacy for Intensive Care Unit management.
7	To evaluate drug-drug interactions for the type of drug interaction, the mechanism responsible for drug interactions, possible outcomes or clinical manifestations of interaction and suggestion corrective measure to overcome or prevent the drug interaction (at least 25 drug-drug
8	To evaluate cases for Interpretation of laboratory data: Renal/ Liver/ CVS/ Diabetes. (Min. three full cases with clinical and other relevant findings)
9	To evaluate cases for Interpretation of laboratory data: Hematological/ Respiratory/ Cancer/ Infectious diseases (Min. three full cases with clinical and other relevant findings)
10	To evaluate two cases involving skills of pharmacist for patient counselling.
11	To evaluate for dose adjustment in geriatrics (three cases)
12	To evaluate for dose adjustment in paediatrics (three cases)
13	To evaluate for dose adjustment in pregnant women (three cases)
14	To evaluate cases for Therapeutic Drug Monitoring (TDM) (two cases)
15	Collecting information for a given drug (Preferably recently approved drugs) regarding adverse drug reactions, drug interactions and contraindications using authenticated sources (Recent text books, Latest Journals and online drug data bases such as medscape).

References Books:

1. J Rang, H.P. and Dale, M.M. Pharmacology, 5th edition, 2010. Publisher : Churchil Livingstone.
2. Tripathi K.D., Essentials of medical pharmacology 6th ed, 2010, Jaypee brothers medical publishers pvt, ltd.
3. Goodman Gilman A., Rall T.W., Nies A.I.S. and Taylor, P. Goodman and Gilman's The Pharmacological Basis of therapeutics, 12th edition, 2011. Mc Graw Hill, Pergamon Press.
4. Katzung, B.G. Basic and Clinical Pharmacology, 8th Edition, McGraw Hill, New
5. York, 11th edn, 2009
6. Satoskar, R.S. and Bhandarkar, S.D. Pharmacology and Pharmacotherapeutics, 20th edition (single volume), 2010, Popular, Dubai
7. Kulkarni S.K. Handbook of experimental pharmacology, 3rd edition, 2009, Vallabh

Prakashan, New Delhi.
8. Clinical pharmacy and therapeutics . Roger Walker and Cate Whittlesea
9. Textbook of therapeutics. Drug and disease management. Eric T Herfindal Dick R Gourley