

GUJARAT TECHNOLOGICAL UNIVERSITY

B.Pharm
SEMESTER: VI

Subject Name: Pharmacology and Pharmacotherapeutics–II
Subject Code: 2260005

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	Neuronal transmitters in CNS	04
	Pharmacology of following class of drugs:	
	General Anesthetics- classification, mechanism of action, stages of anaesthesia, inhalational and intravenous anaesthetics, pharmacokinetics of inhalational anaesthetics, complications, preanaesthetic medications	02
	Ethyl Alcohol- pharmacological actions, mechanism of actions, pharmacokinetics, drug interactions, contraindications, toxicity, treatment, clinical uses, Disulfiram, Methyl alcohol poisoning and treatment.	02
	CNS Stimulants and Psychotomimetic Agents, hallucinogens- classification, individual drugs	02
	Analgesic, Antipyretic, Anti-Inflammatory agents- classification, NSAIDS and Prostaglandin synthesis, pharmacological actions, pharmacokinetics, adverse effects, uses, drug interactions, COX-II inhibitors	02
	Opioid analgesics- classification, pharmacological actions, adverse effects, poisoning and its treatment, uses, opioid receptors and receptor mechanisms, opioid anatagonists, endogenous opioid peptides	03
2	Definition, epidemiology, etiology, pathophysiology, signs and symptoms, diagnosis, complications, treatment and management of following diseases/conditions:	
	Insomnia	02
	Anxiety	02
	Psychosis	03
	Depression	03
	Mania	02
	Epilepsy	03
	Parkinsonism	02
	Alzheimers disease	03
	Gout	02
	Rheumatoid Arthritis	02
3	Drug dependence and drug abuse- drug use, drug abuse, drug induced reward, psychological and physical dependence, tolerance, mechanisms, treatment of various drug addiction- alcohol, tobacco	02
4	Immunomodulators- immunosuppressant drugs- classification, details of each class, immunostimulants (vaccines, antisera, immunoglobulins)	04

Practical – 22600P5

Sr. No.	Content
1	Demonstration Experiments on Central Nervous System: Recording of Spontaneous Motor Activity
2	Demonstration Experiments on Central Nervous System: Recording of Stereotypy
3	Demonstration Experiments on Central Nervous System: Recording of Analgesia
4	Demonstration Experiments on Central Nervous System: Recording of Anti-inflammatory
5	Demonstration Experiments on Central Nervous System: Recording of Anticonvulsant activity
6	Demonstration Experiments on Central Nervous System: Recording of Muscle relaxant activity
7	To find out Nature of Unknown Drugs (Acetylcholine, Histamine, BaCl ₂ , Physostigmine, Atropine, Mepyramine and Papaverine) using Rat/Guinea Pig/Chicken Ileum Preparation.
8	To find out Nature of Unknown Drugs (Acetylcholine, Histamine, BaCl ₂ , Physostigmine, Atropine, Mepyramine and Papaverine) using Rat/Guinea Pig/Chicken Ileum Preparation.
9	To find out Nature of Unknown Drugs (Acetylcholine, Histamine, BaCl ₂ , Physostigmine, Atropine, Mepyramine and Papaverine) using Rat/Guinea Pig/Chicken Ileum Preparation.
10	To find out Nature of Unknown Drugs (Acetylcholine, Histamine, BaCl ₂ , Physostigmine, Atropine, Mepyramine and Papaverine) using Rat/Guinea Pig/Chicken Ileum Preparation.
11	Study on the Effects of CNS Stimulant (Coffee/Tea) on Human Volunteers.
12	Case studies (questions based on history, etiology, symptoms, investigations, medication, adverse effects, drug interactions, pharmacists' advice)
13	a. To evaluate case study of Rheumatoid arthritis (minimum 2 cases) b. To evaluate case study of gout (minimum 2 cases)
14	a. To evaluate case study of Parkinson's disease (minimum 2 cases) b. To evaluate case study of Alzheimer's disease (minimum 2 cases)
15	a. To evaluate case study of Psychosis or Depression (minimum 2 cases) b. To evaluate case study of Anxiety or Insomnia (minimum 2 cases)
	a. To evaluate case study of Epilepsy (minimum 2 cases) b. To evaluate case study of Drug abuse and dependence (minimum 2 cases)

References Books:

1. Rang H.P., Dale M.M., et al-Pharmacology (1995) 3rd Edn. Churchill livingstoneUSA.
2. Satoskar R.S.,et al-Pharmacology and Pharmacotherapeutics (1999) 6th Edn. Popular Prakashan, Mumbai.
3. Harvel, R.A., Champe P.C. et al —Pharmacology (1997) 2nd Edn. Lippincott-Raven Company, Philadelphia, New York.
4. Goodman and Gilman's —the Pharmacological basis of Therapeutics (1996) 9Edn. Pergamon Press, Singapore.
5. Seth,S.D. Text Book of pharmacology,B.I.Churchill, 1997.
6. Goyal, R.K, Mehta A.A.et al- ELEMENTS OF PHARMACOLOGY: B.S. Shah Prakashan, Ahmedabad
7. Goyal R.K.-Practicals in Pharmacology (1994-95) 1st Edn. M/s B. S. Shah Prakashan, Ahmedabad.
8. Sheth U.K. et al-Selected topics in Experimental Pharmacology(1972)15t Edn.The

Kothari Book Depot, Mumbai.

9. Kulakarni S.K.- handbook of Experimental Pharmacology (1993) 2nd Edn. allabh Prakashan, New Delhi.
10. Ghosh M.N - Essentials of Experimental Pharmacology,(1984) Scientific book agency, Calcutta.
11. Clinical pharmacy and therapeutics . Roger Walker and Cate Whittlesea
12. Textbook of therapeutics. Drug and disease management. Eric T Herfindal Dick R Gourley