

J R KISSAN COLLEGE OF PHARMACY, ROHTAK

LESSON PLAN

D.Pharmacy 1st yr. (session 2022-23)

Subject- Pharmaceutical Chemistry

Name of Faculty- Mr. Yogesh

S.No	Date	Theory Topic	Practical Topic
1	02-01-2023 - 05-01-2023	Introduction to Pharmaceutical Chemistry	To study different type of instrument used in laboratory
2	06-01-2023- 13-01-2023 (Quiz/Oral Exam On Wednesday)	Introduction to Pharmaceutical chemistry: Scope and objectives Sources and types of errors: Accuracy, precision, significant figures Impurities in Pharmaceuticals	
3	14-01-2023- 21-01-2023	Source and effect of impurities in Pharmacopoeial substances, importance of limit test, Principle and procedures of Limit tests for chlorides, sulphates, iron, heavy metals and arsenic	To study different type of glassware used in laboratory.
4	22-01-2023-	Volumetric analysis: Fundamentals of volumetric analysis, Acid-base	To perform limit test for

	29-01-2023	titration, non-aqueous titration	chloride in given compound
5	30-01-2023- 06-02-2023	Induction Program	
6	07-02-2023- 13-02-2023	Precipitation titration, complexometric titration, redox titration Gravimetric analysis: Principle and method.	To perform limit test for sulphate in given compound
7	14-02-2023- 20-02-2023 (Quiz/Oral Exam On Wednesday)	Haematinics: Ferrous sulphate, Ferrous fumarate, Ferric ammonium citrate, Ferrous ascorbate, Carbonyl iron ● Gastro-intestinal Agents: Antacids :Aluminium hydroxide gel, Magnesium hydroxide, Magaldrate, Sodium bicarbonate, Calcium Carbonate, Acidifying agents, Adsorbents, Protectives, Cathartics	To perform limit test for iron in given compound
8	21-02-2023- 28-02-2023	Topical agents: Silver Nitrate, Ionic Silver, Chlorhexidine Gluconate, Hydrogen peroxide, Boric acid, Bleaching powder, Potassium permanganate	To prepare and standardize sodium hydroxide solution
9	01-03-2023- 07-03-2023	1st Internal Assessment Exam	
10	08-03-2023- 15-03-2023 (Quiz/Oral	● Dental products: Calcium carbonate, Sodium fluoride, Denture cleaners, Denture adhesives, Mouth washes ● Medicinal gases: Carbon dioxide, nitrous oxide, oxygen	To prepare and standardize Potassium permanganate solution

	Exam On Wednesday)		
11	16-03-2023- 23-03-2023	Introduction to nomenclature of organic chemical systems with particular reference to heterocyclic compounds containing up to Three rings	To prepare and standardize Potassium permanganate solution
12	23-03-2023- 31-03-2023	Anaesthetics: Thiopental Sodium*, Ketamine Hydrochloride*, Propofol • Sedatives and Hypnotics: Diazepam*, Alprazolam*, Nitrazepam, Phenobarbital*	To study about the various safety gadgets used in pharmaceutical laboratory
13	01-04-2023- 07-04-2023 (Seminar on Friday)	• Antipsychotics: Chlorpromazine Hydrochloride*, Haloperidol*, Risperidone*, Sulpiride*, Olanzapine, Quetiapine, Lurasidone	To study about the various chromatographic technique
14	08-04-2023- 15-04-2023	Anticonvulsants: Phenytoin*, Carbamazepine*, Clonazepam, Valproic Acid*, Gabapentin*, Topiramate, Vigabatrin, Lamotrigine • Anti-Depressants: Amitriptyline Hydrochloride*, Imipramine Hydrochloride*, Fluoxetine*, Venlafaxine, Duloxetine, Sertraline, Citalopram, Escitalopram, Fluvoxamine, Paroxetine	
15	16-04-2023- 23-04-2023	• Sympathomimetic Agents: Direct Acting: NorEpinephrine*, Epinephrine, Phenylephrine, Dopamine*, Terbutaline, Salbutamol (Albuterol),	To prepare picric acid from phenol

	(Quiz/Oral Exam On Wednesday)	Naphazoline*, Tetrahydrozoline. Indirect Acting Agents: Hydroxy Amphetamine, Pseudoephedrine. Agents With Mixed Mechanism: Ephedrine, Metaraminol • Adrenergic Antagonists: Alpha Adrenergic Blockers: Tolazoline, Phentolamine	
16	24-04-2023-30-04-2023	• Phenoxybenzamine, Prazosin. Beta Adrenergic Blockers: Propranolol*, Atenolol*, Carvedilol • Cholinergic Drugs and Related Agents: Direct Acting Agents: Acetylcholine*, Carbachol, And Pilocarpine. Cholinesterase Inhibitors: Neostigmine*, Edrophonium Chloride, Tacrine Hydrochloride, Pralidoxime Chloride, Echothiopate Iodide	
17	01-05-2023-07-05-2023 (Seminar on Friday)	• Cholinergic Blocking Agents: Atropine Sulphate*, Ipratropium Bromide Synthetic Cholinergic Blocking Agents: Tropicamide, Cyclopentolate Hydrochloride, Clidinium Bromide, Dicyclomine Hydrochloride*	To prepare benzoic acid from benzamide
18	08-05-2023-15-05-2023	Anti-Arrhythmic Drugs: Quinidine Sulphate, Procainamide Hydrochloride, Verapamil, Phenytoin Sodium*, Lidocaine Hydrochloride, Lorcaïnide Hydrochloride, Amiodarone and Sotalol • Anti-Hypertensive Agents: Propranolol*, Captopril*, Ramipril, Methyldopate Hydrochloride, Clonidine Hydrochloride, Hydralazine Hydrochloride, Nifedipine, • Antianginal Agents: IsosorbideDinitrate	
19	16-05-2023-	Diuretics: Acetazolamide, Frusemide*, Bumetanide, Chlorthalidone,	To perform assay of given

	23-05-2023 (Quiz/Oral Exam On Wednesday)	Benzthiazide, Metolazone, Xipamide, Spironolactone	sample of ferrous sulphate
20	24-05-2023-30-05-2023	Hypoglycemic Agents: Insulin and Its Preparations, Metformin*, Glibenclamide*, Glimepiride, Pioglitazone, Repaglinide, Gliflozins, Gliptins	
21	01-06-2023-07-06-2023	2nd Internal Assessment Exam	
22	08-06-2023-15-06-2023	Analgesic And Anti-Inflammatory Agents: Morphine Analogues, Narcotic Antagonists; Nonsteroidal AntiInflammatory Agents (NSAIDs) - Aspirin*, Diclofenac, Ibuprofen*, Piroxicam, Celecoxib, Mefenamic Acid, Paracetamol*, Aceclofenac	To perform assay of Ibuprofen by alkalimetry
23	16-06-2023-20-06-2023 (Quiz/Oral Exam On Wednesday)	Antifungal Agents: Amphotericin-B, Griseofulvin, Miconazole, Ketoconazole*, Itraconazole, Fluconazole*, Naftifine Hydrochloride • Urinary Tract Anti-Infective Agents: Norfloxacin, Ciprofloxacin, Ofloxacin*, Moxifloxacin,	
24	21-06-2023-23-06-2023	• Anti-Tubercular Agents: INH*, Ethambutol, Para Amino Salicylic Acid, Pyrazinamide, Rifampicin, Bedaquiline, Delamanid, Pretomanid*	To perform identification and test purity of aspirin

25	24-06-2023- 26-06-2023	Antiviral Agents: Amantadine Hydrochloride, Idoxuridine, Acyclovir*, Foscarnet, Zidovudine, Ribavirin, Remdesivir, Favipiravir • Antimalarials: Quinine Sulphate, Chloroquine Phosphate*, Primaquine Phosphate, Mefloquine*, Cycloguanil, Pyrimethamine, Artemisinin	
26	27-06-2023- 30-06-2023 (Seminar on Friday)	• Sulfonamides: Sulfanilamide, Sulfadiazine, Sulfamethoxazole, Sulfacetamide*, Mafenide Acetate, Cotrimoxazole, Dapsone*	To perform identification and test purity of aspirin
27	31-06-2023- 02-07-2023 (Quiz/Oral Exam On Wednesday)	Antibiotics: Penicillin G, Amoxicillin*, Cloxacillin, Streptomycin, Tetracyclines: Doxycycline, Minocycline,	
28	03-07-2023- 10-07-2023	Macrolides: Erythromycin, Azithromycin, Miscellaneous: Chloramphenicol* Clindamycin	To perform identification and test purity of sulphonamide
29	11-07-2023- 15-07-2023	Anti-Neoplastic Agents: Cyclophosphamide*, Busulfan, Mercaptopurine, Fluorouracil*, Methotrexate, Dactinomycin, Doxorubicin Hydrochloride, Vinblastine Sulphate, Cisplatin*, Dromostanolone Propionate	
30	From 16-07- 2023 onward	Revision/ Problem Discussion	

