

**KIIT SCHOOL OF PHARMACY
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B. PHARM 5TH SEMESTER (2025) ASSIGNMENT TOPIC (ADMISSION BATCH 2023)

Roll No.	Medicinal Chemistry-II (BP501T)	Industrial Pharmacy-I (BP502T)	Pharmacology-II (BP503T)	Ph.Cogn.&Phytochem.-II (BP504T)	Pharm. Jurisprudence (BP505T)
23148001	Histamine: Biosynthesis, Release Mechanism & Physiological Roles	Preformulation Studies	Electrophysiology of Heart	Shikimic Acid Pathway – Steps & Importance	Overview of Drugs and Cosmetics Act
23148002	Histamine Receptors (H1, H2, H3, H4): Structure, Distribution & Functions	Application of preformulation in the development of dosage form	Cardiac glycosides	Acetate (Polyketide) Pathway – Mechanism & Applications	Drugs and Cosmetics Act, 1940: Objectives and Importance
23148003	H1 Antagonists: First vs Second Generation – A Comparative Study	BCS classification of drugs & its significant	Pharmacology of anti-hypertensive drugs	Amino Acid Pathway for Secondary Metabolite Formation	Import of Drugs in India – Procedures
23148004	Diphenhydramine & Dimenhydrinate: Chemistry, SAR & Clinical Applications	Quality control tests: In process and finished product tests	Pharmacology of anti-anginal drugs	Biogenetic Classification of Secondary Metabolites	Import of Drugs in India – Prohibitions
23148005	Promethazine & Cyproheptadine: Structure, Mechanism & Uses	Tablet coating: Basics and Advancement	Pharmacology of anti-arrhythmic drugs	Role of Radiolabeled Isotopes in Biogenetic Studies	Import of Drugs in India – Penalties
23148006	Non-Sedating Antihistamines: Loratadine, Cetirizine & Levocetirizine	Basics of Tablets: Components and Formulation	Pharmacology of hyperlipidemic drugs	Biosynthesis of Alkaloids – General Pathways	Manufacture of Drugs: Licensing Requirements
23148007	Cromolyn Sodium: Mast Cell Stabilizers & Anti-Allergic Mechanisms	Formulation and manufacturing consideration of liquid dosage forms	Pharmacology of Sympatholytic agents	Biosynthesis of Terpenoids – Mevalonate Pathway	Manufacture of Drugs: Regulatory Control
23148008	H2 Receptor Antagonists: Chemistry & Clinical Role (Cimetidine, Ranitidine, Famotidine)	Hard gelatin capsules: Basics, Manufacturing, and Quality control test	Pharmacology of calcium channel blockers and vasodilators	Biosynthesis of Phenylpropanoids	Offences under the Drugs and Cosmetics Act
23148009	Proton Pump Inhibitors: Omeprazole, Pantoprazole – Chemistry & Mechanism	Soft gelatin capsules: Basics, Manufacturing, and Quality control test	Pharmacology of nitrates and pot. Channel opener	Differences between Primary & Secondary Metabolites	Penalties under the Drugs and Cosmetics Act
23148010	Alkylating Anticancer Agents: Structure-Activity Relationships	Pellets: Basic Introduction and Advanced Formulations	Pharmacology of membrane stabilizing agents used in arrhythmia	Factors Affecting Biosynthesis of Plant Metabolites	Schedules to the D&C Act – A Detailed Understanding
23148011	Antimetabolites in Cancer Therapy: Methotrexate, 5-Fluorouracil	Ophthalmic Preparations: Introduction, Formulations, and Evaluations	Pharmacology of drugs acting on RAAS	Alkaloids – Introduction, Chemistry & Applications	Detailed Study of Schedule G- Importance in Pharmacy Practice
23148012	Anticancer Plant Products: Vinca Alkaloids & Etoposide – Mechanism & SAR	Parenteral Formulations: Production, Formulations, and Quality Control test	Estrogen and progesterone	Vinca Alkaloids – Source, Chemistry & Uses	Detailed Study of Schedule H- Importance in Pharmacy Practice
23148013	Organic Nitrates in Angina: Chemistry, Mechanism & Clinical Uses	Cosmetics: Formulations, Preparation, and Quality Control test	Hypolipidemic agents	Rauwolfia Alkaloids – Source, Chemistry & Uses	Detailed Study of Schedule H1 - Importance in Pharmacy Practice

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23148014	Calcium Channel Blockers: Dihydropyridines vs Non-DHP Agents	Pharmaceutical Aerosols: Basics, Formulations, Manufacturing, and Evaluations	Pharmacology of ACE inhibitors	Belladonna Alkaloids – Source, Chemistry & Uses	Detailed Study of Schedule M- Importance in Pharmacy Practice
23148015	Acetazolamide & CA Inhibitors: Mechanism & Therapeutic Importance	Packaging Materials Science	Mechanism of blood coagulation	Opium Alkaloids – Morphine & Codeine Source, Chemistry & Uses	Detailed Study of Schedule N- Importance in Pharmacy Practice
23148016	Thiazide Diuretics: SAR and Clinical Utility	Stability aspects of packaging materials, quality control tests	Arachidonic acid pathway	Phenylpropanoids – Classification & Biological Role	Detailed Study of Schedule X- Importance in Pharmacy Practice
23148017	Loop Diuretics: Furosemide & Bumetanide – Structure & Action	Formulation and manufacture of aerosols	Anterior pituitary hormones	Flavonoids – Rutin, Quercetin: Chemistry & Applications	Detailed Study of Schedule Y- Importance in Pharmacy Practice
23148018	Potassium-Sparing Diuretics: Spironolactone, Amiloride, Triamterene	Evaluation of aerosols	Pharmacology of oral anti-coagulants	Steroids – Source, Chemistry & Uses	Licensing of Wholesale and Retail Drug Sale: Rules
23148019	Osmotic Diuretics: Mannitol – Mechanism & Clinical Applications	Quality control and stability studies of aerosols	COX inhibitor drugs	Cardiac Glycosides – Source, Chemistry & Uses	Licensing of Wholesale and Retail Drug Sale: Responsibilities
23148021	ACE Inhibitors: Captopril, Enalapril – Chemistry, SAR & Pharmacology	Formulation and preparation lipsticks	Drugs used in shock therapy	Triterpenoids – Source, Chemistry & Uses	Labelling Rules for Drugs and Cosmetics in India
23148022	Beta Blockers in Hypertension: Timolol & Other Agents	Formulation and preparation shampoos,	Coagulants	Volatile Oils – Mentha, Biological source, chemistry, Uses	Packaging Rules for Drugs and Cosmetics in India
23148023	Central Sympatholytics: Methyldopa & Clonidine	Formulation and preparation cold cream	Hematinics	Volatile Oils – Clove, Biological source, chemistry, uses	General Labelling Requirements: Mandatory Information & Compliance
23148024	Direct Vasodilators: Hydralazine, Minoxidil, Diazoxide	Formulation and preparation vanishing cream,	Anti-coagulants	Volatile Oils – Source, Chemistry & Uses	Role of Drug Regulatory Authorities: DTL
23148025	Sodium Nitroprusside: Chemistry & Rapid BP-Lowering Mechanisms	Formulation and preparation tooth pastes,	Prostaglandins analogues and inhibitors	Fennel & Coriander, Biological source	Role of Drug Regulatory Authorities: FDA
23148026	Classification of Antiarrhythmic Drugs (Class I–IV): Mechanisms & Examples	Formulation and preparation hair dyes and	Fibrinolytics	Tannins – Types & Pharmacological Actions, Chemistry, Uses	Role of Drug Regulatory Authorities: Drug Inspectors
23148027	Class I Antiarrhythmics: Quinidine, Lidocaine – Chemistry & Actions	Formulation and preparation sunscreens	Anti-platelet drugs	Catechu – Source, Chemistry & Uses	Administration of Drug Rules: Technical Advisory Board
23148028	Class III Antiarrhythmics: Amiodarone & Sotalol – Mechanism & Uses	Introduction, formulation considerations of ophthalmic preparations	Plasma volume expanders	Pterocarpus – Source, Chemistry & Uses	Administration of Drug Rules: Consultative Committees
23148029	Statins: Lovastatin – Chemistry, SAR & Lipid-Lowering Mechanism	Evaluations of ophthalmic preparations	RAAS	Resins – General Properties & Classification	Pharmacy Act 1948: Establishment of PCI and Its Functions

23148030	Fibrate Drugs: Clofibrate – Mechanism & Clinical Effects	Quality control tests of parenteral products	Diuretics	Benzoin Resin – Source, Chemistry & Uses	Registration of Pharmacists: Eligibility, Process, and Legal Obligations
23148031	Bile Acid Sequestrants: Cholestyramine & Colestipol	Preformulation factors and essential requirements of parenteral products	Anti-diuretics	Guggul Resin – Source, Chemistry & Uses	Medicinal and Toilet Preparations Act 1955: Manufacture
23148032	Vitamin K & Coagulants: Menadione & Acetomenadione	Introductions, stability testing of soft gelatin capsules and their applications.	Autacoids	Ginger Source, Chemistry & Uses	Medicinal and Toilet Preparations Act 1955: Taxation of Alcoholic Preparations
23148033	Oral Anticoagulants: Warfarin – Chemistry, Mechanism & Toxicity	In process and final product quality control tests for hard gelatin capsules.	5-HT and their antagonist	Asafoetida – Source, Chemistry & Uses	Narcotic Drugs and Psychotropic Substances Act 1985: Control
23148034	Antiplatelet Agents: Clopidogrel – Mechanism & Clinical Role	Evaluation of liquid orals official in pharmacopoeia	Histamine and their antagonist	Myrrh – Source, Chemistry & Uses	Narcotic Drugs and Psychotropic Substances Act 1985: Regulation
23148035	Cardiac Glycosides: Digoxin vs Digitoxin – Chemistry & Pharmacology	Formulation, manufacturing consideration, Packaging of syrups	Eicosanoids	Glycosides – Senna (Sennosides) Source, Chemistry & Uses	Opium Poppy Cultivation
23148036	Novel CHF Drugs: Nesiritide, Bosentan, Tezosentan	Formulation, manufacturing consideration, Packaging of elixirs	Pharmacology of Sulfonyl urea and thiazolidinedione derivatives	Menthol – Isolation & Analysis	Opium Poppy Cultivation - Its Legal Framework in India
23148037	Phenytoin & Tocainide in Arrhythmias: Non-traditional Uses	Formulation, manufacturing consideration, Packaging of suspension	Pharmacology of Angiotensin and Bradykinin	Citral – Extraction & Identification	National Fund for Controlled Drug Abuse – Objectives
23148038	Steroid Chemistry: Nomenclature, Metabolism & Stereochemistry	Formulation, manufacturing consideration, Packaging of emulsion	NSAID	Artemisinin – Isolation, Structure & Uses	National Fund for Controlled Drug Abuse – Functions
23148039	Androgens: Testosterone, Nandrolone – Chemistry & Pharmacological Profile	Quality control tests: In process and finished product tests	Anti-gout drugs	Glycyrrhetic Acid – Isolation & Biological Activity	Drugs and Magic Remedies Act
23148040	Estrogens: Estradiol, Estriol, Estrone – Chemistry & Clinical Use	Tablet Coating	Anti-rheumatic drugs	Rutin – Chemistry, Isolation & Identification	Drugs and Magic Remedies Act-Misleading Advertisements in Healthcare
23148041	Progestins: Progesterone, Levonorgestrel – Structural Features	Tablet coating defects	Thyroid hormones: analogues and inhibitors	Alkaloid Extraction – General Methods	Prohibited Advertisements for Drugs: Ethical
23148042	Selective Estrogen Receptor Modulators (SERMs)	Tablet coating machines	Drugs used in the management of diabetes	Atropine – Isolation & Chemical Detection Tests	Prohibited Advertisements for Drugs: Legal Issues
23148043	Drugs for Erectile Dysfunction: Sildenafil vs Tadalafil	Tablet excipients	Synthesis of thyroid hormones	Quinine – Extraction from Cinchona	Prevention of Cruelty to Animals Act 1960

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23148044	Oral Contraceptives: Mechanism, Types & Synthetic Steroids	Tablet Types	Hormones regulating plasma calcium level	Reserpine – Isolation from Rauwolfia	Prevention of Cruelty to Animals Act 1960-Use of Animals in Research
23148045	Corticosteroids: Hydrocortisone, Prednisolone – Chemistry & SAR	Tablet granulations	Insulin and glucagon	Caffeine – Chemical Analysis & Detection	CPCSEA Guidelines for Laboratory Animal Care
23148046	Glucocorticoids vs Mineralocorticoids: Comparative Study	Tablet compression	ACTH and corticosteroids	Forskolin – Industrial Production	CPCSEA Guidelines for Laboratory Animal Management
23148047	Thyroid Hormones: T3 & T4 Synthesis, Chemistry & Metabolism	Tablet compression defects	Oral hypoglycemic agents	Sennosides – Isolation & Formulation Applications	Role of NPPA
23148048	Antithyroid Drugs: Methimazole & Propylthiouracil – Mechanism	Tablet compression defects	Androgens and anabolic steroids	Artemisinin – Industrial Scale Production	Drug Price Control Order (DPCO 2013)
23148049	Steroid-Induced Side Effects & Clinical Management	Pre-formulation (Physical properties) studies	Oral contraceptives	Diosgenin – Industrial Utilization & Steroid Synthesis	National List of Essential Medicines (NLEM): Importance
23148050	Insulin Preparations: Chemistry, Types & Modifications	Pre-formulation (Chemical properties) studies	Uterine stimulant	Digoxin – Production & Quality Control	National List of Essential Medicines (NLEM): Implications
23148051	Sulfonylureas: SAR of Tolbutamide & Glipizide	Introduction to Tablet	Tocolytics	Atropine – Industrial Extraction Process	Pharmaceutical Legislations in India: History
23148052	Biguanides: Metformin – Chemistry, Mechanism & Therapeutic Role	Tablet Compression Machine	Principle, applications and types of bio-assay	Podophyllotoxin – Commercial Production	Pharmaceutical Legislations in India: Evolution
23148053	Thiazolidinediones: Pioglitazone & Rosiglitazone	Dissolution Apparatus	Bioassay of 5-HT	Caffeine – Industrial Extraction from Tea	Medical Termination Of Pharmacy
23148054	Meglitinides: Repaglinide & Nateglinide	Disintegration Apparatus	Bioassay of histamine	Taxol – Production through Plant Cell Culture	Right To Information Act
23148055	α -Glucosidase Inhibitors: Acarbose & Voglibose	Tablet Defects	Bioassay of digitalis	Vincristine & Vinblastine – Biosynthesis & Applications	Introduction to Intellectual Property Rights(IPR)
23148056	SAR of Local Anesthetics: Essential Functional Groups	Introduction to Cosmetic Technology	Bioassay of d-tubocurarine	Modern Extraction Techniques – Overview	National Pharmaceutical Pricing Authority
23148057	Benzoic Acid Derivatives as Local Anesthetics: Cocaine & Others	Advanced Tablets	Bioassay of ACTH	Spectroscopy Techniques in Phytochemistry	Import of drugs
23148058	Amino Benzoic Acid (PABA) Derivatives: Procaine, Benzocaine	Tablet Stability Studies	Bioassay of vasopressin	Chromatography (TLC, HPLC) in Herbal Drug Analysis	Sale of Drugs
23148059	Lidocaine & Anilide Local Anesthetics: Chemistry & SAR	Hard & Soft Gelatin Capsule: A Comparison	Bioassay of oxytocin	Electrophoresis Techniques in Phytochemical Identification	Pharmaceutical Legislations
23148060	Long-acting Local Anesthetics: Dibucaine & Etidocaine	Aerosol Container	Bioassay of insulin	Purification Techniques for Crude Plant Extracts	Labelling & Packing of Drugs