



**ARKA JAIN**  
**University**  
Jharkhand

**NAAC**  
**GRADE A**  
ACCREDITED UNIVERSITY

## **SCHOOL OF PHARMACY**

### **NOTICE**

**AJU/SOHAS/369 (iii)/25**

**Date:05-12-2025**

It is hereby notified to all the students of B. Pharm 4<sup>th</sup> Semester (2025-2026 academic session) of School of Pharmacy need to prepare and submit the seminars and assignments as directed the subject teacher by the due date 30<sup>th</sup> April 2026 and must upload the evaluated assignments to ERP. The subject teacher needs to keep the excel sheet linked with softcopy of the evaluated assignments.



Dean  
School of Pharmacy  
ARKA JAIN University Jharkhand

**Dean**  
**School of Pharmacy**

**Copy to**  
Vice Chancellor  
Office of the Registrar  
IQAC  
Timetable Committee  
Class coordinators  
Academic Coordinator  
Website In-charge  
Office file  
Student Whatsapp group

<b>Subject Name</b>	<b>Assignment</b>	<b>Seminar</b>
Pharmacology - I – Theory	1. Scope and Importance of Pharmacology in Pharmacy Practice 2. Sedative and Hypnotic Drugs – A Brief Overview	Group A: Autonomic Nervous System and Drug Targets Group B: Cholinergic vs Anticholinergic Drugs – Mechanism, Uses, and Adverse Effects Group C: Adrenergic Receptors: Types, Functions, and Drug Examples Group D: General vs Local Anesthetics - Pharmacology and Clinical Importance
Physical Pharmaceutics - II – Theory	1. Stability Challenges in Pharmaceutical Liquid Dispersions: Understanding Sedimentation, Flocculation, and Phase separation in Suspensions and Emulsions 2. Micromeritics in Pharmaceutical Powders: Interrelationship of Particle Size, Surface Area, Porosity, Density, and Flow Properties with Pharmaceutical Applications	Group A: Accelerated Stability Testing and Shelf-Life Prediction Group B: Powder Flow Problems in Pharmaceutical Manufacturing Group C: Instability Phenomena in Pharmaceutical Suspensions and Emulsions Group D: Electrical Properties of Colloidal Systems and Their Role in stability of Pharmaceutical Dispersions
Medicinal Chemistry - I – Theory	1. Role of Physicochemical Properties in Drug Action 2. Antipsychotic Drugs: Chemical Classification, SAR and Clinical Applications	Group A: Non-Barbiturate Sedative–Hypnotics: Amides, Imides, and Alcohol Derivatives Group B: Cholinergic Receptors: Classification and Tissue Distribution of Muscarinic and Nicotinic Receptors Group C: Indirect-Acting Adrenergic Agonists: Mechanisms, CNS Effects, and Therapeutic Uses. Group D: Opioid Analgesics: Chemical Structure, Pharmacological Actions, and Clinical Significance.
Pharmaceutical Organic chemistry - III – Theory	1. Geometrical Isomerism 2. Optical Isomerism	Group A: Clemmensen's and Wolff Kishner Reduction Reaction Group B: Dakin and Bechmann Condensation Reaction Group C: Oppanauer Oxidation and Metal hydride Reduction with LiAlH <sub>4</sub> Group D: Birch Reduction and Metal hydride Reduction with NaBH <sub>4</sub>