Mid-Term Examination (Syllabus)

Course Name: Pharmacology-I

Course Code: BPH-224

Lesson No.	Learning Outcomes	Course Contents
Lesson-1 to Lesson-2	• Description of different terminology of Pharmacology • Different branches of Pharmacology • Identification of the sources of drug • Selection of preferred routes for the drug administration • Compose the role of genetics in drug action	**General Introduction to Pharmacology** • Sources of drugs • Routes of administration • Pharmacogenetics
Lesson-3 to Lesson-5	• Illustrates the factors responsible for ADME. • Modulate the factors for better outcome. • Categorize different types of metabolism and ways of excretion	**Introduction to Pharmacokinetics** • Drug absorption • Drug distribution, • Drug metabolism • Drug excretion (ADME), • Factors modifying drug absorption
Lesson-6 to Lesson-10	• Interpret the ligand-receptor interaction • Identify the key regulatory molecules. • Discuss the relationship between drug dose & clinical response	**Introduction to Pharmacodynamics** • Basic principles, Mechanism of drug absorption • Receptor (receptor for physiological regulatory molecules, structural and functional families, receptor as enzyme etc.) • Agonist, antagonist • Potentiation, synergism, drug-receptor interaction, factors modifying drug action, drug tolerance, dependence etc. • Basic concept of drug action • Nature of receptor • Drug antagonism • The relation between drug dose & clinical response

		• Signaling mechanism and drug action • Ligand-gated channels, G-proteins and second messengers.
Lesson-11 to Lesson-15	• Learn about the physiology of stomach and gastric acid secretion. • Understand the factors related to gastric acid regulation. • Differentiate between the mechanism of different type of peptic ulcer drugs.	**Drugs for peptic ulcer** • Stomach Physiology • Regulation of acid secretion by parietal cells • Factors Regulating Acid Secretion from Parietal Cells • Gastric Acid Induced Diseases • Classification of anti-ulcerants • Antacids • PPI • H2 receptor blocker • PG analogues • Mucosal Protective Agents • Anti- Helicobacter Pylori Agents