



1.

Faculty of Pharmacy

Pharmacy (50 MCQs – 01 mark each)

Unit-I : Pharmaceutics:

Manufacturing and formulation aspects of: Tablets, Capsules, Liquid Orals, Disperse Systems, Ophthalmic and Parenteral Preparations.

Novel Drug Delivery Systems: types and working of oral and transdermal NDDS.

Solubility phenomenon: definition and concept of solubility, methods and principles of solubility determination.

Principles and procedures of dissolution testing, disintegration tests as per different Pharmacopoeias.

Different Methods of Sterilization: Principles and Procedures as mentioned in Pharmacopoeia of India. Evaluation methods for sterile products and sterility testing as per IP. Microbiological assays: Principles and Procedures as mentioned in Pharmacopoeia of India.

Unit-II :Pharmaceutical Analysis:

General Applications, Principles and Instrumentation of Flame Photometry, Potentiometry, UV/ visible spectroscopy, IR, ATR and FTIR spectroscopy, NMR - Mass spectroscopy, chromatography, DSC, TGA etc.

Unit-III: Pharmacognosy:

Principals and methods of identification of medicinal plants; evaluation of the plant drugs on the basis of organoleptic, microscopic, physical, chemical and biological characteristics. Botanical name, sources, characteristics, identification tests of acacia, fennel, clove, cinnamon, benzoin and turmeric.

Unit-IV: Pharmacology:

Routs of Drug administration, principles of absorption, distribution, metabolism and excretion. Concepts of Pharmacokinetics. In-vivo methods (Animal models) of evaluation of drugs having analgesic, antipyretic, antidiabetic, anti-inflammatory, antimicrobial and wound healing properties.

Unit -V: Pharmaceutical Chemistry:

Inorganic chemistry: Standardization of acids and bases, Limit tests for Iron, Chloride, Sulphate. Antacids: Sodium bicarbonate, Aluminum hydroxide gel, Calcium carbonate. Electrolytes used for replacement



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therapy.

Organic chemistry: Structure and chemistry of Benzene, Study of sp^3 , sp^2 , sp hybridization, sigma & pi- bonds and their significance in reactions. Name reactions: Wittig Reaction, Wolf-Kishner Reduction, Clemmensen Reduction, Cannizaro and Crossed Cannizaro Reaction, Wurtz Reaction.

Medicinal chemistry: Study of chemistry and SAR of Penicillin, Chloremphenicol, Tetracyclin and Ciprofloxacin.