

परिशिष्ट-02

SYLLABUS FOR DRUG INSPECTOR (Grade-2) (PHARMACEUTICAL SCIENCES)

1. Forensic Pharmacy & Drug Regulatory Affairs

- Drugs and Cosmetic Act- 1940
- Pharmacy Act-1948
- Drugs and Magic Remedy Act- 1954
- Medical and Toilet Preparation Act-1955
- Prevention of cruelty to Animal Act 1960
- Drug Price Control Order-1995
- Medical Termination of Pregnancy Act-1971
- Poison Act-1999 and Dangerous Drugs Act-1930
- Trademark Registration Act
- Pharmaceutical Ethics
- Narcotics and Psychotropic Substances Act, 1985
- Study of IP, BP, USP and National Formulary of India
- Brief study on Good Manufacturing Practices, Good Laboratory Practices, WHO Guidelines, USFDA, TGA, EuGMP, UKMHRA & ICH Guidelines.

2. Pharmaceuticals & Biopharmaceuticals

Classification, manufacturing & evaluation of following dosage forms

- Tablet,
- Capsule,
- Parenteral Preparation,
- Emulsion, suspension,
- Suppositories,
- Blood, Fluid and Electrolytes
- Surgical Dressing
- Biological Preparations (Sera, Vaccines and Anti-sera)
- External Preparations
- Ophthalmic Preparations
- **Pharmaceutical aerosols:** Propellants, containers, valves, formulation and evaluation of aerosols.
- **Cosmetics:** Manufacturing and Quality Control of cosmetic preparations.

3. Pharmaceutical Analysis

- Limit Test
- Bio-Assay
- Sterility Test

- Pyrogen Test
- Theory & Application of UV Visible Spectrophotometry, IR Spectrophotometry, GC, HPLC, Mass Spectroscopy
- Karl Fischer Titration
- Alcohol Determination
- Microbiological Assay of Vitamins & Antibiotics

4. **Medicinal Chemistry**

Structure, Storage and marketed preparation of the following-

- Steroids
- Antihistaminic Agents
- **Sedatives and Hypnotics**
- Psycho-therapeutic Agents
- Analgesics
- **Cardiovascular Agents**
- Antimicrobial & Chemotherapeutic Agents.
- Drugs for Metabolic disorders.

5. **Pharmacognosy**

Source, Chemical constituents, uses and adulteration of the following classes of natural drugs:

- Rauwolfia
- Ipecacuanha
- Belladonna
- Cinchona
- **Senna**
- Aloe
- Nuxvomica
- Cinnamon
- **Digitalis**
- Opium
- **Kurchi**
- Brahmi
- Tulsi
- Bael and Ephedra
- Herbal Cosmetics
- Identification & Analysis of Phytoconstituents (Terpenoids, Glycosides, Alkaloids & Resins)

6. **Pharmacology Toxicology**

- **Routes of Administration**
- Absorption, Distribution, Metabolism & Excretion of Drugs
- Bioavailability
- Introduction and General Principle Mode of Action
- Drug Receptor Interaction

- Drug dependence and addiction
- Adverse Drug Reaction, Drug Abuse, Drug Toxicity, Pharmacovigilance
- Biostatistics & applications

7. Hospital & Clinical Pharmacy

- Handling and Prescription
- Incompatibility
- Storage conditions of drugs
- Clinical Pharmacy
- Clinical Trials

8. Anatomy, physiology & Health Education

Basic knowledge of the following is required-

- Cardiovascular System
- Digestive System
- Nervous System
- Reproductive System
- Skeletal System
- Urinary System
- Respiratory System
- Special sense organs (Eye, Ear, skin, Tongue, Nose)
- Nutrition
- First Aid
- Population Control
- Communicable and Non-communicable disease