

PHARMACIST (HARYANA) SYLLABUS HSSC 2023

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PHARMACEUTICS

1. History of the profession of Pharmacy in India in relation to Pharmacy education, industry, pharmacy practice, and various professional associations
2. Salient features of Indian Pharmacopoeia, Packaging materials, Preservatives,
3. Unit operations,
 - Size reduction,
 - Size separation,
 - Filtration,
 - Drying,
 - Extraction,
4. Tablets,
5. Capsules ,
6. Liquid oral preparations - solution, syrup, elixir, emulsion, suspension, dry powder for reconstitution,
7. Topical preparations,
8. Powders and granules,

9. Sterile formulations,
10. Immunological products, Quality control and quality assurance,
11. Introduction to the concept of calibration and validation, Novel drug delivery systems.

PHARMACEUTICAL CHEMISTRY

1. Introduction to Pharmaceutical chemistry,
2. Sources and types of errors,
3. Impurities in Pharmaceuticals,
4. Volumetric analysis & Gravimetric analysis,
5. Inorganic Pharmaceuticals,
 - Haematinics,
 - Gastro-intestinal Agents,
 - Topical agents,
 - Dental products,
 - Medicinal gases,
6. Drugs Acting on Central Nervous System:
 - Anaesthetics,
 - Sedatives and Hypnotics,
 - Antipsychotics,
 - Anticonvulsants,
 - Anti-Depressants,
7. Drugs Acting on Autonomic Nervous System:
 - Sympathomimetic Agents,
 - Adrenergic Antagonists,
 - Cholinergic Drugs and Related Agents,
 - Cholinergic Blocking Agents,
 - Synthetic Cholinergic Blocking Agents,
8. Drugs Acting on Cardiovascular System:
 - Anti-Arrhythmic Drugs,
 - Anti-Hypertensive Agents,
 - Antianginal Agents,
9. Diuretics,
10. Hypo-glycaemic Agents,
11. Analgesic And Anti-Inflammatory Agents,
12. Anti-Infective Agents:
 - Antifungal Agents,
 - Urinary Tract Anti-Infective Agents,
 - Anti-Tubercular Agents,
 - Antiviral Agents,
 - Antimalarials,
 - Sulphonamides,
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13. Antibiotics, Tetracyclines, Macrolides,
14. Anti-Neoplastic Agents.

PHARMACOGNOSY

1. Definition, history, present status and scope of Pharmacognosy,
2. Classification of drugs (Alphabetical, Taxonomical, Morphological, Pharmacological, Chemical, Chemo-taxonomical)
3. Quality control of crude drugs,

4. Brief outline of occurrence, distribution, isolation, identification tests, therapeutic activity and pharmaceutical applications of alkaloids, terpenoids, glycosides, volatile oils, tannins and resins,
5. Biological source, chemical constituents and therapeutic efficacy of crude drugs :
 - Laxatives,
 - Cardiogenic,
 - Carminatives and G.I. regulators,
 - Astringents,
 - Drugs acting on nervous system,
 - Anti- hypertensive, Anti-tussive,
 - Anti-rheumatics,
 - Anti-tumour,
 - Antidiabetics,
 - Diuretics,
 - Anti-dysenteric,
 - Antiseptics and disinfectants,
 - Antimalarials,
 - Oxytocic,
 - Vitamins,
 - Pharmaceutical Aids,
 - Enzymes ,
6. Plant fibres used as surgical dressings (Cotton, silk, wool and regenerated fibres; Sutures – Surgical Catgut and Ligature)
7. Basic principles involved in the traditional systems of medicine ,
8. Method of preparation of Ayurvedic formulations,
9. Role of medicinal and aromatic plants in national economy and their export potential,
10. Herbs as health food, Introduction to herbal formulations, Herbal cosmetics,
11. Phytochemical investigation of drugs.

HUMAN ANATOMY AND PHYSIOLOGY

1. Scope of Anatomy and Physiology Definition of various terminologies,
2. Structure of Cell, Tissues of the human body,
3. Osseous system,
4. Haemopoietic system,
5. Lymphatic system,
6. Cardiovascular system,
7. Respiratory system,
8. Digestive system,
9. Skeletal muscles,
10. Nervous system,
11. Sense organs - Anatomy and physiology,
12. Urinary system, Endocrine system (Hormones and their functions),
13. Reproductive system.

SOCIAL PHARMACY

1. Introduction to Social Pharmacy,
2. Preventive healthcare – Role of Pharmacists,
3. Nutrition and Health,
4. Introduction to Microbiology and common microorganisms,
5. Epidemiology,
6. Introduction to health systems and all ongoing National Health programs in India, their objectives, functioning, outcome, and the role of pharmacists,

7. Pharmacoeconomics.

PHARMACOLOGY

1. General Pharmacology,
2. Drugs Acting on the Peripheral Nervous System,
3. Drugs Acting on the Eye,
4. Drugs Acting on the Central Nervous System,
5. Drugs Acting on the Cardiovascular System,
6. Drugs Acting on Blood and Blood Forming Organs,
7. Definition, classification, pharmacological actions, dose, indications, and contraindications
 - Anti-ulcer drugs
 - Anti-emetics
 - Laxatives and purgatives
 - Anti-diarrheal drugs
8. Drugs Acting on the Gastro Intestinal Tract,
9. Drugs Acting on the Kidney,
10. Hormones and Hormone Antagonists,
11. Autocoids,
12. Chemotherapeutic Agents,
13. Biologicals.

COMMUNITY PHARMACY AND MANAGEMENT

1. Community Pharmacy Practice,
2. Professional responsibilities of community pharmacists,
3. Introduction to the concept of Good Pharmacy Practice and SOPs,
4. Prescription and prescription handling,
5. Communication skills,
6. Patient counselling,
 - Stages of patient counselling,
 - Barriers to effective counselling,
 - Patient counselling points for chronic diseases/disorders,
 - Patient Package Inserts,
 - Patient Information leaflets,
7. Medication Adherence,
8. Health Screening Services in Community Pharmacy,
9. Over the Counter (OTC) Medications,
10. Community Pharmacy Management.

BIOCHEMISTRY & CLINICAL PATHOLOGY

1. Introduction to biochemistry,
2. Carbohydrates,
3. Proteins,
4. Lipids,
5. Nucleic acids,
6. Enzymes,
7. Vitamins,
8. Metabolism,
9. Minerals,
10. Water and Electrolytes,
11. Introduction to Biotechnology,

12. Organ function tests,
13. Introduction to Pathology of Blood and Urine.

PHARMACOTHERAPEUTICS

1. Pharmacotherapeutics – Introduction, scope, and objectives. Rational use of Medicines, Evidence Based Medicine, Essential Medicines List, Standard Treatment Guidelines (STGs),
2. Definition, etiopathogenesis, clinical manifestations, non-pharmacological and pharmacological management of the diseases associated with
 - Cardiovascular System,
 - Respiratory System, Endocrine System,
 - Central Nervous System, Gastro Intestinal Disorders,
 - Haematological disorders,
 - Infectious diseases,
 - Musculoskeletal disorders,
 - Dermatology,
 - Psychiatric Disorders,
 - Ophthalmology,
 - Anti-microbial Resistance,
 - Women's Health.

HOSPITAL AND CLINICAL PHARMACY

1. Hospital Pharmacy,
2. Different Committees in the Hospital,
3. Supply Chain and Inventory Control,
4. Drug distribution,
5. Compounding in Hospitals. Bulk compounding, IV admixture services and incompatibilities, Total parenteral nutrition,
6. Radio Pharmaceuticals, Application of computers in Hospital Pharmacy Practice, Electronic health records, Software's used in hospital pharmacy,
7. Clinical Pharmacy,
 - Daily activities of clinical pharmacists,
 - Pharmaceutical care,
 - Medication Therapy Management, Home Medication Review,
8. Clinical laboratory tests used in the evaluation of disease states - significance and interpretation of test results,
9. Poisoning,
10. Pharmacovigilance,
11. Medication errors,
12. Drug Interactions.

PHARMACY LAW AND ETHICS

1. General Principles of Law, History and various Acts related to Drugs and Pharmacy profession, Pharmacy Act-1948 and Rules,
2. Pharmacy Practice Regulations 2015,
3. Drugs and Cosmetics Act 1940 and Rules 1945 and New Amendments, Manufacture of drugs, Sale of Drugs, Administration of the Act and Rules,
4. Narcotic Drugs and Psychotropic Substances Act 1985 and Rules,
5. Drugs and Magic Remedies (Objectionable Advertisements) Act 1954,
6. Prevention of Cruelty to Animals Act-1960,
7. Poisons Act-1919,

8. FSSAI (Food Safety and Standards Authority of India) Act and Rules,
9. National Pharmaceutical Pricing Authority,
10. Code of Pharmaceutical Ethics, Medical Termination of Pregnancy Act and Rules – basic understanding, salient features, and Amendments,
11. Role of all the government pharma regulator bodies –Central Drugs Standards Control Organization (CDSCO), Indian Pharmacopoeia Commission (IPC),
12. Good Regulatory practices (documentation, licenses, renewals, e-governance) in Community Pharmacy, Hospital pharmacy, Pharma Manufacturing, Wholesale business, inspections, import, export of drugs and medical devices,
13. Introduction to BCS system of classification, Basic concepts of Clinical Trials, ANDA, NDA, New Drug development, New Drugs and Clinical Trials Rules, 2019. Brand v/s Generic,
14. Trade name concept, Introduction to Patent Law and Intellectual Property Rights, Emergency Use Authorization,
15. Blood bank – basic requirements and functions, Clinical Establishment Act and Rules – Aspects related to Pharmacy,
16. Biomedical Waste Management Rules 2016 – Basic aspects, and aspects related to pharma manufacture to disposal of pharma / medical waste at homes, pharmacies, and hospitals, Biomedical Waste Management Rules 2016 – Basic aspects, and aspects related to pharma manufacture to disposal of pharma / medical waste at homes, pharmacies, and hospitals,
17. Introduction to the Consumer Protection Act, Introduction to the Disaster Management Act,
18. Medical Devices.