

**PHARMACY: SECTION III**  
**SYLLABUS AND MARKS DISTRIBUTION**

**Section-III**

**PHARMACOGNOSY**

- |    |   |       |              |
|----|---|-------|--------------|
| A. | Pharmacognosy   | ----- | 20 Questions |
| B. | Drug Store & Business Management                      | ----- | 15 Questions |
| C. | Health Education and Community Pharmacy subjects----- |       | 15 Questions |

**PHARMACOGNOSY**

1. Definition, history and scope of Pharmacognosy including indigenous system of medicine.
2. Various systems of classification of drugs of natural origin.
3. Adulteration and drug evaluation; significance of Pharmacopial standards.
4. Brief outline of occurrence, distribution, outline of isolation, identification tests, therapeutic and pharmaceutical applications of alkaloids, terpenoids, glycosides, volatile oils, tannins and resins.
5. Occurrence, distribution, organoleptic evaluation, chemical constituents including tests wherever applicable and therapeutic efficacy of following categories of drugs.
  - (a) Laxatives: Aloe, Rhubarb, Castor oil, Ispaghula, Senna.
  - (b) Cardiotonics- Digitalis, Arjuna.
  - (c) Carminatives & G.I regulators- Umbelliferous fruits, Carianther, Fennel, Ajowan, Cardamom, Ginger, Black pepper, Asafoetida, Nutmeg, Cinnamon, Clove.
  - (d) Astringents – Catechu.
  - (e) Drugs acting on nervous system –Hyoscyamus, Belladonna, Aconite, Ashwagandha; Ephedra, Opium, - Cannabis, Nuxvomica.
  - (f) Antihypertensives – Rauwolfia.
  - (g) Antitussive – Vasaka, Tolu balsam, Tulsi.
  - (h) Antirheumatics – Guggul, Colchicum.
  - (i) Antitumour – Vinca.
  - (j) Antileprotics – Chaulmoogra Oil.
  - (k) Antidiabetics – Pterocarpus, Gymnema, Sylestro.
  - (l) Diuretics – Gokhru, Purnarnava.
  - (m) Antidysenteries – Ipecacuanha.
  - (n) Antiseptics and disinfectants Benzoin, Myrrh, Nim, curcuma.
  - (o) Antimalarials – Cinchona.
  - (p) Oxytocics – Ergot
  - (q) Vitamins – Shark liver Oil and Amla.
  - (r) Enzymes – Papaya, Diastase, Yeast.
  - (s) Perfumes and flavouring agents – peppermint Oil, Lemon Oil, Orange, grass Oils, Sandalwood.
  - (t) Pharmaceutical aids – Honey, arachis Oil, Strach, Kaolin, Pectin, Oliveoil, Lanolin, Beeswax, Acacia, Tragacanth, Sodium alginate, Agar, Guar gum, Gelatin.
  - (u) Miscellaneous – Liquorice, Garlic, Picrorrhiza, Dioscorea, Linseed. Shatavari, Shanknapushpi, Pyrethrum, Tobacco.
6. Collection and preparation of crude drug for the market as exemplified by Ergot, opium; Rauwolfia, Digitalis, Senna.
7. Study of source, preparation and identification of fibres used in sutures and surgical dressings – cotton, silk, wool and regenerated fibre.

8. Gross anatomical studies of Senna, Datura, Cinnamon, Cinchona, Fennel, Clove, Ginger, Nuxvomica & Ipecacuanha.

### **DRUG STORE AND BUSINESS MANAGEMENT**

1. Introduction – Trade, industry and Commerce, Functions and subdivision of commerce, introduction of Elements of Economics and management
2. Forms of Business Organizations.
3. Channels of Distribution.
4. Drug House Management -Selection of Site, Space Lay-out and legal requirements.  
Importance and objectives of purchasing, selection of suppliers, credit information, tenders contract and price determination and legal requirements there to.  
Codification, handling of drug stores and other hospital supplies.
5. Inventory Control – objects and importance, modern techniques like ABC, VED analysis, the lead time, inventory carrying cost, safety stock, minimum and maximum stock levels, economic order quantity, scrap and surplus disposal.
6. Sales promotion, Market Research Salesmanship, qualities of salesman, Advertising and Window Display.
7. Recruitment, training, evaluation and compensation of the pharmacist.
8. Banking and Finance Service and Functions of bank. Finance planning and sources of finance. Part-II Accountancy
  1. Introduction to the accounting concepts and conventions. Double entry book keeping different kinds of Account.
  2. Cash Book
  3. General Ledger and Trial Balance Sheet
  4. Profit and Loss Account and Balance Sheet
  5. Simple technique of analyzing financial statementsIntroduction to Budgeting

### **HEALTH EDUCATION AND COMMUNITY PHARMACY SUBJECTS**

1. Concept of health- Definition of Physical health, mental health, social health, spiritual health determinants of health, indicator of health, concept of disease, natural history of diseases, the disease agents, concept of prevention of diseases.
2. Nutrition and health- Classification of foods requirements, disease induced due to deficiency of proteins, Vitamins and minerals treatment and prevention.
3. Demography and family planning – Demography cycle, fertility, family planning, contraceptive methods, behavioral methods, natural family planning method, chemical method, mechanical methods, hormonal contraceptives, population problem of India.
4. First aid – Emergency treatments in shock, snake bite, burns poisoning heart disease, fractures and resuscitation methods. Elements of minor surgery and dressings.
5. Environments and health – Sources of water supply, water pollution, purification of water, health and air, noise light solid waste disposal and control, medical entomology, arthropod borne disease and their control, rodents, animals and diseases.
6. Fundamental Principles of microbiology classification of microbes, isolation, staining techniques of organisms of common diseases.
7. Communicable diseases – Causative agents, modes of transmission and prevention.
  - (a) Respiratory infection – Chicken pox, measles, Influenza, diphtheria whooping cough and tuberculosis.
  - (b) Intestinal infections; Poliomyelitis, Hepatitis, Cholera, Typhoid, Food Poisoning, Hookworm infection.

- (c) Arthropod borne infections – plague, Malaria; Filariasis.
  - (d) Surface infection – Rabies, Trichoma, Tetanus, Leprosy.
  - (e) Sexually transmitted diseases – Syphilis, Gonorrhoea, AIDS.
8. Non- communicable diseases – causative agents, prevention, care and control.  
Cancer, Diabetes; Blindness, Cardiovascular diseases.
  9. Epidemiology its scope, methods uses dynamics of diseases of transmission immunity and immunization; Immunological products and their dose schedule, principles of disease control and prevention, hospital acquired infection, prevention and control, Disinfection, types of disinfection, disinfection procedures, faeces urine, sputum, Icomlinen, dead-bodies, instruments.

### **ANNEXURE III**

#### **MODEL QUESTIONS FOR PHARMACY**

1. Ball mill works on the principle of
  - 1) Impact
  - 2) Attrition
  - 3) Crushing
  - 4) Compaction
2. B.C.G. Vaccine contains
  - 1) Living culture
  - 2) Non-living culture
  - 3) Natural culture
  - 4) Artificial culture
3. Acacia is not used as
  - 1) Diluent
  - 2) Suspending agent
  - 3) Emulsifying agent
  - 4) Binder