

# SYLLABUS FOR DISPENSER COURSE

Duration – One Year

## PAPER - A Section – I

### PHARMACY AND PHARMACOLOGY

1. Definition of drugs, nomenclature of drugs, sources of drugs, dosage and preparations, pharmacopoeias.
2. Incompatibilities.
3. Weights and measures (Metric and Imperial Systems) with symbols and their conversions.
4. Compounding and dispensing of pharmaceutical preparations.
5. Calculations of percentage solution.
6. Reading and writing of prescriptions, including knowledge of parts of prescription with criticism, Latin names and signs of every day use.
7. Basic knowledge of important commonly used drugs which will include the following:-
  - a. Classification.
  - b. Names of Official Drugs.
  - c. Preparations, doses and routes of administration.
  - d. Important uses, contraindications, main toxic effects.
8. Drug Act.
9. Medical Dental Ordinance.
10. Prohibition of Medical Practice Ordinance.
11. Duties and responsibilities of Dispenser.

### Section -II

#### A. Basic Concepts of following Systems of Human Body

1. Digestive System
2. Circulatory System
3. Respiratory System
4. Nervous System
5. Excretory System
6. Reproductive System
7. Skeletal System
8. Lymphatic System

#### B. Record Keeping and Maintenance of following Registers

1. Charting Temperature, pulse etc.
2. Outdoor Register
3. Abstract Register
4. Poisons Register
5. Expense Register
6. Medicolegal Register
7. Postmortem Register

**PAPER – B**  
**Section - I**

**1. Drugs acting on Autonomic Nervous System (ANS)**

- a. Basic concepts of ANS.
- b. Adrenaline, Dopamine, Salbutamol, Ephedrine, Beta Blockers and Methyldopa.

**2. Drugs used in Glaucoma**

**3. Drugs used in Angina**

**4. Drugs used in Hypertension**

**5. Drugs acting on Respiratory System :**

- a. Expectorants
- b. Antitussives
- c. Bron-chodilators

**6. Antibiotics and Chemotherapeutic Agents**

Sulphonamides, Cotrimoxazole, Penicillins, Cephalosporins, Aminoglycosides, Tetracyclines, Chloramphenicol, Macrolide, Antifungal Drugs, Anti-viral drugs.

7. Drugs used in the treatment of Tuberculosis, Leprosy, Amoebiasis, Malaria and Anthelmintics.

**8. Hormones**

- a. Oxytocin: Ergometrine, Oxytocin.
- b. Hypoglycaemic Drugs: Insulin, Oral (Hypoglycaemic), Corticosteroids.

**9. Drugs Acting on Blood**

Haematenics, Anticoagulants, Heparin

**10. Locally Acting Drugs**

Demulcents, Emollients, Dusting Powders, Bitters, Volatile Oils, Digestive Ferments, Antiseptics.

**11. Drugs acting on Gastrointestinal Tract**

Antacids, Purgatives, Antiemetics, Drugs used in peptic ulcer, Antidiarrhoeal drugs.

**12. Drugs acting on Central Nervous System**

Antipsychotic Drugs (Major Tranquilizers), Antianxiety Drugs (Minor Tranquilisers), Narcotic-Analgesics, Analgesics-Antipyretics (Non-Steroidal Anti-Inflammatory Drugs), Alcohol, Hypnotics, General Anesthetics, Local Anesthetics and Analeptics (Nikethamide).

**13. Treatment of Over-dosage and Poisoning\_\_** Morphine, Opioids, Atropine, Strychnine, Insecticides, Kerosine Oil, Acids, Caustics(Alkalies), Toxicology, side effects of drugs used.

#### 14. Basic Concepts and First Aid Management of following diseases :

AIDS	Hepatitis	Diarrhoea	Typhoid
Cholera	Poliomyelitis	T.B.	Tetanus
Whooping Cough	Measles	Mumps	Diphtheria
Epilepsy	Asthma	Rabies	Snake Bite
Immunity			

#### Section - II

##### 1. Sterilization

Principles of sterilization as applied to operation theatre, dressings, hands and skin, preparation of hypodermic injections, syringes.

2. Artificial respiration.
3. Basic concepts and First Aid treatments of burns, fractures, heat stroke, dehydration.
4. Practical training in emergency procedures and anaesthesia.
5. Charting of temperature and pulse.
6. Pattern of Treatment Chart , Investigation Forms.
7. Use of common clinical appliances (Thermometer,BP Apparatus), sterilizer, lumbar puncture needle, splints etc).
8. Virus, bacteria, fungus.
9. Elementary knowledge of sera, vaccines, toxins and antitoxins i.e. anti-tetanus toxoid, anti-diphtheria toxoid, anti-rabic vaccine, anti-snake venom, anti-gas gangrene serum, and vaccines for cholera, typhoid, whooping cough, influenza, poliomyelitis, typhus, plague, T.B., measles etc.
10. Storage of drugs, vaccines, transportation, their validity, stock taking and labelling.
11. Routine urine, blood and sputum examination and other routine examinations and normal values. Sample collecting for laboratory tests and their proper disposal.
12. Blood Grouping and Blood Transfusion.
13. Basic knowledge of Expanded Programme of Immunization (E.P.I.). Healthcare System – Introduction, Environmental Protection.
14. Diarrhoeal diseases and their control, oral rehydration therapy. Vaccine Chain.
15. Storage of Equipment:  
Bedding and clothing, surgical instruments and rubber goods.

##### 16. Shock

Definition,types and First Aid management.

17. Preparation of Emergency Room:

Minor Surgical Procedures in following conditions :

Hernia, Hydrocele, Lipoma, Fibroma, Episiotomy , Lumbar Puncture.

### PRACTICALS

Candidates will be required to prepare and dispense following preparations:

#### 1. Preparations

- a.. Ointment of Sulphur and other skin ointments
- b. Solutions :  
Potassium Permanganate, Acriflavin, Dextrose Saline Solutions.
- c. Fractional Powder .
- d. Menthol's paint.
- e. Gum paint.

## 2. Appliances

A basic knowledge of simple appliances and their method of use :-

- a. Stethoscope
- b. Sphygmomanometer (B.P. Apparatus)
- c. Sterilizer
- d. Enema Can
- e. Lumbar Puncture Needle
- f. Splints
- g. Familiar with modern techniques.

## 3. Identification of Specimens

Identification of different shapes of the drugs e.g :

- a. Enteric coated
- b. Sugar coated
- c. Different roots for administration of drugs
- d. Normal values of different tests
- e. Flatus tubes
- f. Operation of the Oxygen Cylinder
- g. Use of Catheters
- h. Identification of different scopes
- i. Physical examination of injectables
- j. Packing and preparation of drugs
- k. Poppy capsules
- l. Belladonna root
- m. Aspirin powder
- n. Sodium bicarbonate
- o. Copper sulphate
- p. Menthol
- q. Thymol
- r. Camphor
- s. Tinct Cardamom
- t. Spirit
- u. Gention Violet
- v. Acriflavin