

**SHORT TERM VOCATIONAL
CERTIFICATE COURSE**

PHARMACY ASSISTANT

(06 months Duration)

Prepared by

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PHARMACY ASSISTANT

NAME OF THE COURSE: Pharmacy Assistant

SECTOR : Medical

COURSE CODE : PA

ENTRY QUALIFICATION: Minimum 10th pass

PRE-REQUISITES: SSC PASS

Terminal Competence: After completing this course, student will be able to work as a Pharmacy Assistant in any Pharmacy

Duration: 06 Months (240 Hours)

Introduction: A drug Store/Pharmacy/Community Pharmacy/Chemist's is a retail shop which provides prescribed drugs, among other products. At the drug store, a pharmacist oversees the fulfillment of medical prescriptions and is available to give advice on their offerings of over-the-counter drugs.

Objectives:

1. To stock all drugs and accessories required in the hospital.
2. To procure drugs from different sources.
3. To supply prescribed and over-the-counter drugs to the patients.
4. To provide information to patients and other healthcare professionals.
5. To maintain records of receipts and issue of drugs.

ON THE JOB TRAINING AND PRACTICALS:

- Work at the Pharmacy
- Case studies on dispensing various over-the-counter drugs
- Interacting with the patients, doctors and other healthcare personnel
- Handling prescription
- Stocking, systematic arrangement of drugs in the pharmacy

SCHEME OF INSTRUCTION/ MODULE

Module	Theory		On the Job Training		Total	
	Hours	weightage	Hours	weightage	Hours	weightage
Module-1	80	30%	160	70%	240	100%

COURSE: PHARMACY ASSISTANT

SYLLABUS

1. Basic Anatomy and Physiology

05 HRS

- a. Various organ systems in the body and their functions
- b. Blood pressure: Definition, types, normal values.
 - Precautions while measuring & handling of sphygmomanometer
- c. Clinical laboratory tests used in the evaluation of disease states-significance and interpretation of test results.
 - Haematological, Liver function, Renal function, thyroid function tests
 - Tests associated with cardiac disorders
 - Fluid and electrolyte balance
 - Pulmonary Function Tests

2. Introduction to Pharmacy and Drugs

10 HRS

- a. Code of Pharmaceutical Ethics: Definition, Ethical principles, Pharmacist's Oath.
- b. Types of Dosage forms of drugs - based on states of matter and route of administration
- c. Biomedical Waste Management Rules - 2023
- d. Handling medications
 - Brand name, generic name
 - Reading ingredients on the medicine
 - Identifying batch number & expiry date of medicine
 - Storage instructions
- e. Prescription - Definition, parts of prescriptions, legality of prescriptions, prescription handling, labelling of dispensed medications (Main label, ancillary label, pictograms) brief instructions on medication usage

3. Principles of Safety & Health Hazard Measures of Drugs **20 HRS**

- a. Therapeutic effects, Side effects, Adverse effects of a drug
- b. Medication errors: Definition, types, consequences, and strategies to minimize medication errors, LASA drugs and Tallman lettering as per ISMP

- c. Drug Interactions, Contraindications
- d. Ways to make medication use safer
- e. Schedule H, Restricted medicine
- f. Over The Counter (OTC) Medications- Definition, need and role of Pharmacists in OTC medication dispensing
 - OTC medications in India, counselling for OTC products
 - Self-medication and role of pharmacists in promoting the safe practices during self-medication
 - Responding to symptoms, minor ailments, and advice for self-care in conditions such as Pain management, Cough, Cold, diarrhoea, Constipation, Vomiting, Fever, Sore throat, dental pain, gums infections (mouth ulcers, dental pain, gum swelling)

4. Category of Medicinal Compounds 10 HRS

Study of the following, category of medicinal compounds, with respect to uses, side effects and storage conditions, different types of formulations and their popular brand names:

- a. Drugs Acting on Central Nervous System
 - Anaesthetics
 - Antipsychotics
 - Anticonvulsants
 - Anti-Depressants
- b. Drugs Acting on Autonomic Nervous System
- c. Drugs Acting on Cardiovascular System
 - Anti-Arrhythmic Drugs
 - Anti-Hypertensive Agents
 - Antianginal Agents
- d. Diuretics
- e. Hypoglycaemic Agents
- f. Analgesic and Anti-Inflammatory Agents
- g. Anti-Infective Agents
 - Antifungal Agents
 - Urinary Tract Anti-infective Agents
 - Anti-Tubercular Agents
 - Antiviral Agents
 - Antimalarials
 - Sulphonamides
- h. Antibiotics

5. Inventory Control 10 HRS

- a. Keeping medicine in systematic way- FEFO, FIFO methods

- b. Expiry drug removal and handling, and disposal. Disposal of Narcotics, cytotoxic drugs
- c. Documentation- purchase and inventory
 - maintaining stock ledger for availability of medicine.
 - maintaining data as per the expiry date of medicine.
 - maintaining sale register after everyday distribution of medicine.
 - placing purchase order as per requirement.
- d. calculating purchase price & setting the sale price.

6. Study the following:

05 HRS

- a. Types of injection pricking & precautions taken care during injection pricking
- b. Stethoscope
- c. First aid- First aid equipment, Storage, Sterilization methods
- d. Bandaging & its various types

PRACTICAL

1. Basic Human Anatomy and Physiology 05 HRS

- a. Blood pressure
 - i. Measuring Blood pressure using Sphygmomanometer
 - ii. Precautions while measuring & handling of sphygmomanometer
- b. Diabetes
 - i. Measuring random blood sugar using Glucometer
 - ii. Precautions to take while using Glucometer
- c. Clinical laboratory tests used in the evaluation of disease states- interpretation of test results.
 - i. Haematological, Liver function, Renal function, thyroid function tests
 - ii. Tests associated with cardiac disorders
 - iii. Fluid and electrolyte balance
 - iv. Pulmonary Function Tests

2. Introduction to Pharmacy and drugs 20 HRS

- a. Identify different types of dosage forms of drugs- based on states of matter and route of administration
- b. Handling medications
 - i. Brand name, generic name
 - ii. Reading ingredients on the medicine
 - iii. Identifying batch number & expiry date of medicine.
 - iv. Identifying and following storage instructions

- c. Handling prescription - labelling of dispensed medications (Main label, ancillary label, pictograms), brief instructions on medication usage
- d. Biomedical Waste Management

3. Principles of safety & health hazard measures of drugs. 30 HRS

- a. Identifying Look alike – Sound alike drugs. Tallman lettering as per ISMP
- b. Ways to make medication use safer
- c. Schedule H, Restricted medicine
- d. Over The Counter (OTC) Medications- Definition, need and role of Pharmacists in OTC medication dispensing
 - i. Promoting the safe practices during self-medication
 - ii. Responding to symptoms, minor ailments, and advice for self-care in conditions such as Pain management, Cough, Cold, diarrhoea, Constipation, Vomiting, Fever, Sore throat, dental pain, gum health (mouth ulcers, dental pain, gum swelling)

4. Category of Medicinal Compounds 20 HRS

Study of the following, category of medicinal compounds, with respect to uses, side effects and storage conditions, different types of formulations and their popular brand names

- a. Drugs Acting on Central Nervous System
 - i. Anaesthetics
 - ii. Antipsychotics
 - iii. Anticonvulsants
 - iv. Anti-Depressants
- b. Drugs Acting on Autonomic Nervous System
- c. Drugs Acting on Cardiovascular System
 - i. Anti-Arrhythmic Drugs
 - ii. Anti-Hypertensive Agents
 - iii. Antianginal Agents
- d. Diuretics
- e. Hypoglycaemic Agents
- f. Analgesic and Anti-Inflammatory Agents
- g. Anti-Infective Agents
 - i. Antifungal Agents
 - ii. Urinary Tract Anti-infective Agents
 - iii. Anti-Tubercular Agents
 - iv. Antiviral Agents
 - v. Antimalarials
 - vi. Sulphonamides
- h. Antibiotics

5. Inventory Control

10 HRS

- a. Keeping medicine in systematic way- FEFO, FIFO methods
- b. Expiry drug removal and handling, and disposal. Disposal of Narcotics, cytotoxic drugs
- c. Documentation- purchase and inventory
 - i. maintaining stock ledger for availability of medicine.
 - ii. maintaining data as per the expiry date of medicine.
 - iii. maintaining sale register after everyday distribution of medicine.
 - iv. placing purchase order as per requirement.
 - v. Use of computer in managing Inventory
- d. calculating purchase price & setting the sale price.

6. Study the following:

05 HRS

- a. Types of injection pricking & precautions taken care during injection pricking.
- b. Stethoscope- how to use
- c. First aid- Basic first aid practices
- d. Bandaging – types of bandages, different methods of bandaging

INTERNSHIP – 2 months

60 HRS

English and Soft Skills

Assignments and Record

Students will be expected to submit at least one assignment per chapter and maintain Observation and Record book.

List Of Equipment/ Requirements

1. Fully functional Outpatient Pharmacy
2. Computer
3. Registers in the Pharmacy
4. Sphygmomanometer
5. Glucometer
6. Stethoscope
7. White board / black board + markers

Qualifications of Teaching Faculty:

1. Graduation from any recognized university with an aggregate of 55% marks (Preferably B. Pharm/Pharm. D/Diploma Holder in Pharmacy practice)
2. Proficiency in explaining the concepts

Division of Marks:

Theory: 100 Max. Marks

1. Communicative English : 20 marks

- | | |
|------------------------------|--------------------|
| 2. Short Questions | : 6 x5m = 30 marks |
| 3. Long Questions | : 4x10 = 40 marks |
| 4. Multiple Choice Questions | : 10x1=10 marks |

Practical: 100 Max. Marks

- | | |
|--------------------------------|------------|
| 1. External | : 40 marks |
| 2. Record/ Mini Project & Viva | : 10 marks |
| 3. Internship /OJT | : 50 marks |

**STATE INSTITUTE OF VOCATIONAL EDUCATION
O/o DIRECTOR OF INTERMEDIATE EDUCATION,**

TELANGANA, HYDERABAD
SHORT TERM VOCATIONAL CERTIFICATE COURSE

REGD. NO:

TIME: 3 HRS

MAX. MARKS: 100
PHARMACY ASSISTANT
MODEL QUESTION PAPER (THEORY)

SECTION- A
COMMUNICATIVE ENGLISH

20 MARKS

SECTION- B

Note: a) Answer ALL questions.

b) Each question carries **5 Marks**.

6x5M=30 MARKS

1. What is first-aid? Mention the first aid equipment and their sterilization methods.
2. Write about FEFO, FIFO methods of arranging medicine in a systematic way.
3. What are the precautions to be taken while measuring Blood pressure.
4. Define the following with examples:
 - a. OTC medications
 - b. Schedule H medicines
 - c. Restricted medicine
 - d. Medication error
 - e. Drug interactions
5. Write and explain some important functions in Excel that can be used in the Pharmacy.
6. Write about various anti-infective agents with examples.

SECTION- C

Note: a) Answer any **FOUR** questions.

b) Each question carries **10 Marks**.

4X10M=40 MARKS

1. Define a prescription? What are the parts of a valid prescription? Explain with a diagram.
2. Write about various bandaging techniques and mention the uses.
3. What is the use of Documentation in a pharmacy. Mention different types of registers used in the Pharmacy.
4. Write about the principles of safety and health hazard measures of drugs.

SECTION-D

10X1=10 Marks

1. Which of the following medicine is used for severe allergic reaction?

- (a) Paracetamol (b) Avil (c) Meftal Spas (d) Soframycin

2. Which of the following is not one of the 5R's of dispensing?

- (a) Right patient (b) Right dose (c) Right doctor (d) Right time

3. What is the normal blood pressure in an adult (with units)?

- (a) 120/80 (b) 120/80 mm of Hg (c) 150/90 (d) 130/90 mm of Hg

4. Which of the following ways helps in making medication use safer?

- (a) Checking the validity of the prescription
(b) Asking relevant questions to the patient before dispensing medicines
(c) Correctly labelling SALA drugs
(d) All of the above

5. Which of the following medicines cannot be dispensed without a prescription?

- (a) Metformin (b) Levocetirizine (c) Gelusil (d) Zincovit

6. The drug administration route demonstrating the slowest onset of action is:

- (a) Transdermal (b) Sublingual (c) Intravenous (d) Inhalational

7. The proprietary drug name supplied by a pharmaceutical company is also referred to as the

- (a) Brand name (b) Generic name (c) Excipient (d) API

8. Infected waste and anatomical waste is discarded in which colored bin?

(a) Red (b) Black (c) Blue (d) Yellow

9. Which of the following is an antihypertensive drug?

(a) Losartan (b) Glimiperide (c) Ecospirin (d) Ibugesic

10.----- is an unwanted harmful reaction following the administration of a medication.

(a) Side effect (b) Adverse drug reaction
(c) Therapeutic effect (d) Drug interaction

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MODEL QUESTION PAPER (PRACTICAL)

Note: a) Answer ALL questions.

b) Each question carries **10 Marks.** **4X10=40MARKS**

1. Write briefly about MS-Word, MS-Excel. Write about the use of computers in the Pharmacy.
2. Define and write the procedure of placing a purchase order. Place a purchase order for the following medicine in a tabular format.
3. a. Define Over-the-Counter (OTC) medications and mention their uses. Write 5 important counselling questions to ask the patient before dispensing medicine.

 b. What OTC medicines can be given for vomiting and diarrhoea.
4. Mention various organ systems of the human body and their functions.

Record/Mini Project & Viva

10 Marks

Internship/OJT

50 Marks