

August 2025
PHARMACOLOGY

Time Allowed: 3 Hours

Full Marks: 80

Answer all Questions as directed

- 1. A. Choose the correct alternative (any ten).** 1×10
- a) Domperidon is - (i) anticholinergic (ii) prokinetic (iii) 5HT antagonist (iv) H₂ antagonist
 - b) Penicillin act by inhibiting - (i) RNA gyrase (ii) DNA gyrase (iii) inhibition of cell membrane synthesis (iv) inhibition of cell wall synthesis
 - c) Ranitidine is - (i) H₁ (ii) H₂ (iii) H₃ (iv) Beta₁ receptor blocker.
 - d) Albendazole - (i) Antidiarrhoeal (ii) antiamebic (iii) Anthelmintic (iv) Antiulcer
 - e) Phenytoin is - (i) sedative (ii) antiepileptic (iii) general anaesthetic (iv) hypnotic drug
 - f) One tricyclic antidepressant is - (i) Amitriptyline (ii) Lidocaine (iii) Gabapentin (iv) Fluoxetine
 - g) Broad spectrum antibiotics are effective against- (i) only gram(+ve) (ii) only gram(-ve) (iii) both gram(+ve) & gram(-ve) and many other organisms (iv) none of the above
 - h) BCG vaccine is given by which route - (i) intramuscular. (ii) intrathecal (iii) intravenous (iv) intradermal
 - i) Anti-herpes virus drug is - (i) Acyclovir (ii) Tinidazole (iii) Ciprofloxacin (iv) Rifampicin
 - j) Insulin is primarily administered by - (i) oral (ii) sublingual (iii) subcutaneous (iv) intramuscular route
 - k) Multidrug therapy is the most effective for the treatment of - (i) tuberculosis (ii) diarrhoea (iii) amoebiasis (iv) urinary tract infection

- B. Define the following (any ten)** 1×10
- a) Emetic
 - b) Bradycardia
 - c) Pharmacokinetics
 - d) Myosis
 - e) Haematuria
 - f) Antibiotics
 - g) sedative
 - h) Ataxia
 - i) Myocardial infarction
 - j) Agonist
 - k) Mucolytic

- 2. Answer any 10 (Ten) questions from the following:** 3×10
- a) Classify antiviral agents with example.
 - b) Write three pharmacological actions of oxytocin.
 - c) Write down the treatment of malaria.
 - d) Write the role of calcium channel blockers in hypertension.
 - e) Discuss the advantages and disadvantages of oral route of drug administration.
 - f) Write down the mechanism of action of proton pump inhibitors.
 - g) Write a short note on COX1 & COX2 inhibitor.
 - h) Compare between Active & Passive Transport.
 - i) Classify antitussives and write their role in cough therapy.
 - j) Write a short note on Thrombolytic drugs.
 - k) Write a short note on Glaucoma.
 - l) Describe preanaesthetic medications.

3. Answer any 6 (Six) questions from the following:

- a) Write short note on autacoids.
 - b) Classify diuretics and explain how thiazide diuretic works.
 - c) Write short note on thyroid and anti-thyroid agents.
 - d) Classify antihypertensive drugs with examples.
 - e) Write the mechanism of action of local anaesthetics and write about spinal anaesthesia
 - f) What are anti-amoebic drugs? Classify anti-amoebic drugs along with suitable examples.
 - g) Write a short note on oral hypoglycaemics.
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Community Pharmacy and Management

Time Allotted: 3 Hours

full Marks: 80

Answer all Questions as directed**1. A. Choose the correct alternative (any ten)****1×10**

- a) A common health screening service offered in community pharmacies is:
 (i) MRI scans (ii) Blood pressure monitoring
 (iii) Complex surgical consultations (iv) Organ transplants
- b) The main objective of patient counselling is to:
 (i) Increase medication sales (ii) Ensure effective and safe use of medication
 (iii) Diagnose patient conditions (iv) Replace the doctor's advice
- c) Prescription 'Signatura' means:
 (i) Instruction to the patient about intake of drug (ii) Signature of the prescriber
 (iii) Instructions to the pharmacist about compounding (iv) signature of the pharmacist
- d) Dispensing area should be equip with:
 (i) Refrigerator (ii) Computer (iii) Weight and height scale (iv) All of the above
- e) To prevent drug interaction the following is most important:
 (i) Interaction checker software (ii) Pharmacopoeia and drug formulary
 (iii) Excellent pharmacological knowledge (iv) Patient history
- f) Over-the-counter (OTC) medicines are characterized by:
 (i) Being exclusively for chronic diseases (ii) Being available only in hospitals
 (iii) Being safe and effective for use without a prescription (iv) Requiring a doctor's prescription
- g) Worm infestation can be caused by:
 (i) Contaminated air (ii) Contaminated food
 (iii) Contaminated hands (iv) All of the above
- h) English meaning of cibos is:
 i) Food ii) Meals iii) Both iv) None
- i) Which of the following does not belongs to auxiliary label?
 i) Do not freeze ii) Shake well before use iii) Do not crush iv) Name of dosage form
- j) What does CPR stand for:
 i) Chest Pressure Response ii) Chest Per Resuscitation
 iii) Cardiopulmonary Resuscitation iv) Cardio Press Resuscitation
- k) To prevent drug interaction the following is most important:
 (i) Interaction checker software (ii) Pharmacopoeia and drug formulary
 (iii) Excellent pharmacological knowledge (iv) patient history
- l) Which of the following is an OTC drug?
 i) Metronidazole ii) Morphine iii) Insulin iv) Diazepam

B. Fill in the blanks (any ten)**1×10**

- a) Superscription part of a prescription includes _____.
- b) Dispensing errors are the leading cause of _____.
- c) In petty cash book _____ transaction are recorded.
- d) A wholesaler deals with all items manufactured by a company is called _____.
- e) A wholesaler deals with all items manufactured by a company is called _____.
- f) Pictogram is example of _____ label.
- g) Patient counseling helps to improve _____ adherence.

- h) The red line on a medicine strip indicates ____ drugs.
- i) A ____ register must be maintained for the sale of poisonous drugs.
- j) The primary role of a community pharmacist is to _____ patients with medications and advice.
- k) Effective inventory management in a community pharmacy involves managing _____ levels and minimizing waste.
- l) The Pharmacy Council of India has passed "Pharmacy Practice Regulations" in the year _____.

2. Answer any 10 (Ten) questions from the following:

3×10

- a) What are the contents of a typical patient medication record (PMR)?
- b) What are the reasons for Self-Medication?
- c) What is meant by rational use of medicines? Provide two examples.
- d) Explain the concept of patient counseling in brief.
- e) Mention three precautions to be taken while storing vaccines in a community pharmacy.
- f) Write a short note on the pharmacist's role in health promotion.
- g) Write a short note on the pharmacist's role in health promotion.
- h) What is prescription medicine and OTC medicine?
- i) Define constipation what are its causes.
- j) What are the factors responsible for COPD?
- k) What is customer relation management? What is its importance?
- l) What does a symbol R_x means.
- m) Describe SOP for dispensing of medicine.
- n) How does a pharmacist's professional appearance contribute to patient trust?

3. Answer any 6 (Six) questions from the following:

5×6

- a) What are the professional responsibilities of community pharmacists?
- b) Elaborate upon one-to-one communication. What are its advantages and limitations?
- c) What are dispensing errors? Discuss various strategies to minimise dispensing errors.
- d) Write in short on various early detection test which are commonly conducted and recommended by pharmacist for early detection.
- e) What do you mean by mHealth? Define online pharmacy. Give advantage and disadvantage of online pharmacy.
- f) What are the roles of inventory control, discuss its various methods.
- g) What are Hypertension and AIDS. What are its causes, sign and symptoms?
- h) How to treat (any two) Fever, Dental pain, and Skin disorder by using OTC drugs.

August 2025

Biochemistry and Clinical Pathology

Time Allowed: 3 Hours

Full Marks: 80

Answer all Questions as directed

1. A. Choose the correct alternative.

1×10

- a) 'Body building food' mainly contains - (i) Carbohydrate (ii) Protein (iii) Lipid (iv) Vitamins.
- b) Increasing blood clotting time is due to the deficiency of Vitamin - (i) A (ii) C (iii) K (iv) B₂.
- c) Vitamin essential for transamination is - (i) B₁ (ii) B₂ (iii) B₆ (iv) B₁₂.
- d) In a DNA strand, the nucleotides are linked together by - (i) Glycosidic bond (ii) Phosphodiester bond (iii) Peptide bond (iv) Hydrogen bond.
- e) Presence of glucose in urine known as - (i) Pyuria (ii) Haematuria (iii) Proteinuria (iv) Glycosuria
- f) Which of the following produces pyruvate? - (i) Alanine (ii) Leucine (iii) Cystine (iv) Lysine
- g) Example of a non-essential amino acid is - (i) Leucine (ii) Methionine (iii) Tryptophan (iv) Alanine.
- h) Glucose residues are linked by β -1,4 glycosidic bonds in - (i) Starch (ii) Cellulose (iii) Amylose (iv) Glycogen.
- i) The number of mg of KOH required to neutralize the free and combined fatty acid in one gram of a given fat is called - (i) Polenske number (ii) Acid number (iii) Saponification number (iv) Iodine number.
- j) Number of unsaturation present in Arachidic Acid is - (i) 0 (ii) 1 (iii) 2 (iv) 3.
- k) Highest elevation with AST is seen in viral - (i) Influenza (ii) Hepatitis (iii) Meningitis (iv) Pneumonia.

B. Fill in the blanks

1×10

- a) Enzymes concerned with TCA cycle are found in Mitochondria.
- b) Glucose when treated with strong mineral acid produces _____.
- c) An extracellular enzyme which is secreted ready for action is called _____ secretion.
- d) Most frequently found amino acid in the active site of an enzyme is _____.
- e) A charged amino acid which is electrically neutral is known as _____.
- f) A condition in which the serum sodium level falls below the normal is known as Hypocalcaemia.
- g) A dipeptide contains _____ numbers of amino acids.
- h) Sugars forming five membered rings are called _____.
- i) The full name of SGOT is _____.
- j) The central structure of vitamin B₁₂ is known as _____ ring system. Metal/Chelat
- k) Excretion of _____ hormone is increased in certain stages of pregnancy. Pregnosterone

2. Answer any 10 (Ten) questions from the following:

3×10

- a) What do you mean by mutarotation?
- b) Calculate ATP generation per molecule of glucose in glycolysis.
- c) Write a brief note on essential fatty acids.
- d) Give a brief note on Cori cycle.
- e) Explain briefly primary structure of proteins. S-G+F
M-G+G
- f) What do you mean by marker enzyme?
- g) Write down the chemical structure of Sucrose and Maltose.
- h) Give chemical constituents and significance of Barfoed's reagent.
- i) Differentiate between glycogenesis and glycolysis.
- j) State the clinical significance of platelets.
- k) Describe two Qualitative tests for protein.
- l) What is the impact of biotechnology for human development?

3. Answer any 6 (Six) questions from the following:

5×6

- a) Classify amino acids based on chemical nature.
- b) Briefly describe (with reaction) the four oxidative steps of the Krebs's cycle
- c) Write a note on various reactions involved in protein metabolism.
- d) Classify carbohydrate with example. Write down chemical structure of a reducing sugar. 4+1
- e) What do you mean by the abnormal constituents of urine? Write down the significance of abnormal constituents of urine in health and disease.
- f) Write a short note on structure and functions of cholesterol in the body.
- g) Write down the functions and deficiency condition of fat-soluble vitamins in human body.
- h) Write short notes on liver function tests.