

0811

11718

3 Hours / 80 Marks

Seat No.

--	--	--	--	--	--	--	--	--	--

- Instructions* – (1) All Questions are *Compulsory*.
(2) Answer each next main Question on a new page.
(3) Figures to the right indicate full marks.
(4) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any EIGHT of the following: 16
- Give English meaning for following:
Utenda, Haustus, Jentaculum, Nebula.
 - Why white soft paraffin is not used in eye ointment base?
 - What is 'Prescription'? Name its different parts.
 - Give metric equivalents of the following. 1 minim, 1 ounce, 1 drachm, 1 desert spoonful
 - Give the reasons :
 - Why paints are viscous.
 - Oily vehicles not used in Nasal drop.
 - What are the precautions taken during storage of eye drops?
 - What is 'Physical incompatibility'? Give one example.
 - Define :
 - Total Parenteral Nutrition
 - Dialysis

P.T.O.

- i) Give qualities of a good suspension.
- j) Give four points of difference between Paste and Ointment.
- k) Describe two methods used to calculate the dose of drug in children depending on age.
- l) Write four advantages of suppositories.

2. Attempt any FOUR of the following: 12

- a) What volume of alcohol is required to prepare 500 ml 15% alcohol using, 25%, 18%, 12% and 8% alcohols.
- b) Explain the term 'Aseptic Technique'.
- c) Define the term prescription and list various errors seen in dispensing prescriptions.
- d) Define 'Dentifrices' and explain formulation of it.
- e) Explain 'LAL' test.
- f) What is indiffusible mixture. Give the composition of compound tragacanth powder, mention the example of Indiffusible mixture.

3. Attempt any FOUR of the following: 12

- a) Write a short note on formulation and method of preparation of 'Effervescent granules'.
- b) Define 'incompatibility'. What is adjusted types of incompatibility, explain with example.
- c) Differentiate between flocculated and deflocculated suspension.
- d) Define mixture. Describe method of dispensing mixture containing diffusible solids.
- e) What is 'Cracking of emulsion'? Describe any four factors responsible for cracking of emulsion.
- f) Explain the formulation of parenteral preparation.

4. Attempt any FOUR of the following:**12**

- a) Define 'Gargles' and 'Mouth Wash'. What are the uses of douches? Discuss with example.
- b) What are 'syrups'? Give different methods of preparation of syrups.
- c) Calculate the displacement value of zinc oxide from the following data.
 - (i) Capacity of the mould used = 15 grains
 - (ii) Weight of 6 unmedicated suppositories = 90 grains
 - (iii) Weight of 6 suppositories containing 40% of zinc oxide = 132 grains.
- d) What is the principle behind sterility testing? Describe membrane filtration method for sterility testing.
- e) Define 'Pyrogen'. Name the different methods of pyrogen testing. Describe Rabbits method.
- f) List different test for identification of an emulsion and explain any one.

5. Attempt any FOUR of the following:**12**

- a) Define :
- (i) Nasal drops
 - (ii) Inhalation
 - (iii) Ear drops
- b) Differentiate between liniment and lotion.
- c) Define parenterals. Give essential qualities of parenteral product. Give the steps involved in manufacturing of parenteral product.
- d) What is Dusting powder, Give the classification of it and mention the formulating ingredients of it.
- e) Point out incompatibility (if any) and describe suitable method for its dispense -

R_x,

Quinine sulphate	1.5 gm
Dilute sulphuric acid	4 ml
Potassium Iodide	8 gm
Water	upto	200 ml
Prepare mixture, send	100 ml

- f) Define 'shampoo', and discuss the formulation of it.

6. Attempt any FOUR of the following:**16**

- a) What are 'cachets'? Mention its advantages and disadvantages.
- b) Explain methods of evaluation of suspension.
- c) Name the various facial cosmetics. Explain different eye make-up preparation.
- d) Find the amount of sodium chloride required to make 50 ml of isotonic solution containing 0.5% of Ephedrine HCL and chlorobutol.
- (Given: 1] F.P. of 1% w/r solution of ephedrin HCL = -0.165°C
 2] F.P. of 1% w/r solution of chlorobutol = -0.138°C)
- e) Classify emulsifying agents with one example of each class. Describe dry gum method for preparation of emulsion.
- f) Define 'Jellies'. Give its types. Write disadvantages of jellies.

0812

11718

3 Hours / 80 Marks

Seat No.

--	--	--	--	--	--	--	--

- Instructions* – (1) All Questions are *Compulsory*.
(2) Answer each main Question on a new page.
(3) Illustrate your answers with neat sketches wherever necessary.
(4) Figures to the right indicate full marks.
(5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

- 1. Attempt any EIGHT of the following:** **16**
- a) Write the structure for following (any two):
- (i) Anilino
 - (ii) Benzyl
 - (iii) Guanidinyll
- b) Write the structure with numbering of the following: (any two)
- (i) Piperidine
 - (ii) Thiazole
 - (iii) Pyridazine
- c) Write the structure with numbering of the following : (any two)
- (i) Acridine
 - (ii) Indole
 - (iii) Isoquindine

P.T.O.

- d) Give uses of (any two):
- (i) Glyceryl trinitrate
 - (ii) Nystatin
 - (iii) Pilocarpine
- e) Define the following giving example
- (i) Anthelmintic
 - (ii) Anticoagulant
- f) Give the dosage forms in which following drugs are given:
- (i) Salbutamol
 - (ii) Insulin
- g) Write the structure of following drugs:
- (i) Atropine
 - (ii) DEC
- h) Name the drug present in following brand:
- (i) Valium
 - (ii) Mebex
- i) Give use of Fluoresceine sodium.
- j) Draw the structure of basic steroidal nucleus. Give two uses of Hydrocortisone.
- k) Give stability storage conditions of the following:
- (i) Diethylether
 - (ii) Adrenaline
- l) Give structure and chemical name of Ethambutol.

2. Attempt any FOUR of the following:

12

- a) Write structure and chemical name for:
- (i) Isoniazid
 - (ii) Caffeine
- b) Define and classify sedative - hypnotics with examples.

- c) Give structure, chemical name, physical properties and uses of Nikethamide.
- d) Define 'Vitamins' and classify them giving examples.
- e) Give structure and chemical name of:
 - (i) Indomethacin
 - (ii) Ephedrine
- f) Name the components of Co-trimoxazole. Write mechanism of its antibacterial action and popular brand names.

3. Attempt any FOUR of the following: 12

- a) Name a tranquillizer belonging to benzodiazepine class. Give its structure, chemical name and popular brand names.
- b) What are Cardiotonics? Write about their hydrolysis products.
- c) Name a sedative - hypnotic containing - Piperidine ring in its structure. Give its structure and chemical name.
- d) Give structure and chemical name of:
 - (i) Dapsone
 - (ii) Phenobarbitone
- e) Classify Antiseptics and disinfectants. Also write the structure of Chlorocresol.
- f) Define and classify 'Diuretics' with examples.

4. Attempt any FOUR of the following: 12

- a) Define and classify antipsychotics with examples.
- b) What is epilepsy? Classify the drugs used in the treatment of epilepsy with examples.
- c) Give structure, chemical name and uses of Paracetamol.
- d) Classify sulphonamides in atleast two different ways.
- e) What are catecholamines? Write the structure of two catecholamines.
- f) Name the hormones secreted by thyroid gland. Write structure and chemical name of Thyroxine.

- 5. Attempt any FOUR of the following:** **12**
- a) Give properties, uses storage conditions for Aspirin.
 - b) Define and classify Antihistaminic agents with examples.
 - c) Give structure and important therapeutic uses of Propranolol.
 - d) Define and classify Antitubercular agents.
 - e) Name one drug each containing following heterocycle and draw the structure of the drug:
 - (i) Furan
 - (ii) Imidazole
 - f) Define Hypoglycemic agents and classify them with examples.
- 6. Attempt any FOUR of the following:** **16**
- a) Write the name of the drug with following chemical name and draw its structure:
 - (i) 4 - [4 - (4 - Chlorophenyl) - 4 - hydroxy piperidino] - 4 - fluoro butyrophenone.
 - (ii) N - diethyl amino acetyl - 2, 6 - Xylidine.
 - b) Classify Antimalarial agents. Also give the structure of Chlonoquine with chemical name.
 - c) Define and classify cardiovascular agents.
 - d) Draw and explain the structure of basic nucleus of Penicillins. Also give the structure of 'Penicillin G' with its chemical name.
 - e) Define and classify Antineoplastic agents with examples. Give properties and uses of methotrexate.
 - f) Define and classify general anaesthetics. Give structure and chemical name of Halothane.
-

0813

11718

3 Hours / 80 Marks

Seat No.

--	--	--	--	--	--	--	--	--	--

- Instructions* – (1) All Questions are *Compulsory*.
(2) Answer each next main Question on a new page.
(3) Illustrate your answers with neat sketches wherever necessary.
(4) Figures to the right indicate full marks.
(5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Define any EIGHT of the following terms with two examples of each:

16

- a) Contraceptives
- b) Antibiotics
- c) Antiseptics
- d) Anthelmintics
- e) Antiemetics
- f) Purgatives
- g) Haematinics
- h) Antacids
- i) Local Anaesthetics
- j) Tranquilizers

P.T.O.

2. Attempt any FOUR of the following: 12

- a) Classify various routes of administration of drugs which is the most common route? Give its merits and demerits.
- b) Explain triple response of Histamine.
- c) Define Diarrhoea. Classify antidiarrheal drugs. Mention their mechanism of action.
- d) Classify non steroidal anti inflammatory drugs, mention therapeutic uses of Aspirin.
- e) Give symptoms and treatment of acute barbiturate poisoning.
- f) Enlist and describe channels of drug elimination.

3. Attempt any FOUR of the following: 12

- a) Name atleast one drug contra indicated in:
 - (i) Insomnia
 - (ii) Peptic ulcer
 - (iii) Head injury
 - (iv) Pregnancy
 - (v) Constipation
 - (vi) Liver damage
- b) Mention route of administration of following drugs.
 - (i) Heparin
 - (ii) Mannitol
 - (iii) Diazepam
 - (iv) Insulin
 - (v) Castor oil
 - (vi) Nitroglycerin
- c) Name one drug each which produces following effect:
 - (i) Cycloplegia
 - (ii) Bone and teeth deformity
 - (iii) Anaphylaxis
 - (iv) Thrombocytopenia
 - (v) Agranulocytosis
 - (vi) Blood dyscrasias

- d) Mention adverse effect of following drugs:
- (i) Streptomycin
 - (ii) Quinine
 - (iii) Aspirin
 - (iv) Reserpine
 - (v) Codeine
 - (vi) Ethambutol
- e) Mention drug of choice for following conditions:
- (i) Gout
 - (ii) Gonorrhoea
 - (iii) Glaucoma
 - (iv) Pernicious anemia
 - (v) Raynaud's disease
 - (vi) Resistant schizophrenia
- f) Mention antidote along with mechanism for following:
- (i) Morphine poisoning
 - (ii) Heavy metal poisoning
 - (iii) Organo phosphorus poisoning

4. Attempt any FOUR of the following:

12

- a) Define and classify epilepsy. Give treatment of status epilepticus.
- b) What are 'Sedative and Hypnotics'? Give their classification with examples.
- c) Write a note on 'oral hypoglycemic agents'.
- d) What is drug tolerance? Describe different types of drug tolerance?
- e) Differentiate between drug addiction and drug habituation.
- f) Describe action of acetylcholine on eyes and skeletal muscles and heart.

5. Attempt any FOUR of the following:**12**

- a) What do you mean by 'Dales Vasomotor Reversal'?
- b) What are diuretics? Classify diuretics? Explain thiazides as diuretics.
- c) Write a note on 'Preanaesthetic' medication.
- d) What is bronchial asthma? Give the drug therapy on asthma.
- e) What are cytotoxic agents? Classify them with examples.
- f) Classify anti-hypertensives with examples.

6. Give reasons for any FOUR of the following:**16**

- a) Acetylcholine is not used clinically.
 - b) Tincture of opium is used in diarrhoea.
 - c) Sulphonamides are not much in use now a days.
 - d) Anthelmintics are administered with purgatives.
 - e) Digitalis called as 'Cardiotonic'.
 - f) Why carbidopa is given along with levodopa ?
 - g) Antibiotics are generally given in combination.
-

00814

11718

3 Hours / 80 Marks

Seat No.

--	--	--	--	--	--	--	--	--

- Instructions :**
- (1) All Questions are *compulsory*.
 - (2) Answer each next main Question on a new page.
 - (3) Illustrate your answers with neat sketches wherever necessary.
 - (4) Figures to the right indicate full marks.

Marks

1. Attempt any EIGHT of the following :

16

- (a) Give the objectives of the Medical Termination of Pregnancy Act, 1971.
- (b) Give penalties for falsely claiming to be a registered under the Pharmacy Act, 1948.
- (c) Give the functions of Drugs Consultative Committee.
- (d) Define 'Advertisement' under the DMR (O.A.) Act, 1954.
- (e) State the objectives of the Drugs Price Control Order, 1995.
- (f) Define 'Poppy straw' under the N.D.P.S. Act, 1985.
- (g) State the importance of 'Pharmacist' in health care system.
- (h) Differentiate between 'drug store' and 'pharmacy'.
- (i) State the objectives of the Drugs & Magic Remedies (O.A.) Act, 1954.
- (j) What do the schedules 'F' and 'G' to the D & C Rules, 1945 prescribe ?
- (k) Differentiate between 'law' & 'ethics'. (any four points)
- (l) What punishment is prescribed for contravention of provisions in relation to cannabis plant & cannabis under the NDPS Act, 1985 ?

[1 of 4]

P.T.O.

2. Attempt any FOUR of the following : 12

- (a) What are the functions of the Central council under the Pharmacy Act, 1948 ?
- (b) State the rules prescribed by state Government in relation to possession for sale and sale of any poison. (any six)
- (c) Give the procedure followed for the movements of the goods from me warehouse to another.
- (d) State the qualifications for appointment of 'Drug Inspector' as per the D & C Act, 1940.
- (e) Define 'Addict' and 'Cannabis' under the NDPS Act, 1985.
- (f) How the Schedule 'X' drugs are supplied on retail counter ?

3. Attempt any FOUR of the following : 12

- (a) Give the constitutions of Joint State Pharmacy Council under the Pharmacy Act, 1948.
- (b) How Bonded Laboratory be constructed ?
- (c) Describe in detail Drugs Prices Equalisation Account (DPEA).
- (d) What are the powers of central Govt. to prohibit & regulate the operations involved under the N.D.P.S. Act, 1985.
- (e) Give the particulars that should appear on label of 'Ophthalmic preparations'.
- (f) Explain the ethics for pharmacist in relation to his profession.

4. Attempt any FOUR of the following : 12

- (a) Describe offences & penalties under the Drugs and Magic Remedies (O.A.) Act, 1954.
- (b) Define : (i) Net worth; and (ii) Free reserve, as per DPCO, 1995.

- (c) What are “Education Regulations” as prescribed under the pharmacy Act, 1948 ?
- (d) Give bonafied reasons for termination of pregnancy under M.T.P. Act, 1971. (any six)
- (e) State in brief powers of Drugs Inspector under D & C Act, 1940 and rules thereunder.
- (f) Give functions of Central Drug Laboratory.

5. Attempt any FOUR of the following :

12

- (a) Give the classes of advertisement of drugs which are prohibited under D.M.R. (O.A.) Act, 1954 ?
- (b) Describe the offences & penalties under Poisons Act, 1919.
- (c) Give the formula for calculating retail price of the formulations and explain the terms as per the DPCO, 1995.
- (d) Define (i) Registered Pharmacist and (ii) Repatriate, under the Pharmacy Act, 1948.
- (e) State the penalty for following offences :
 - (i) Sale of dutiable good except in prescribed containers bearing a label.
 - (ii) Keeping of stocks of dutiable goods in disorderly manner (not in accordance with the provisions of the Act); and
 - (iii) Vexations search, seizure by any officer exercising powers, under the M.T.P. (E.D.) Act, 1955.
- (f) What do you mean by
 - (i) Restricted licences
 - (ii) Loan licences

P.T.O.

6. Attempt any FOUR of the following :**16**

- (a) What are the powers of state Government to prohibit, regulate and control the operations involved under N.D.P.S. Act, 1985 ?
 - (b) Explain the ethics for pharmacist in relation to his job.
 - (c) What is the purpose of pharmaceutical legislation ? Explain recommendations of D.E.C. (any six)
 - (d) Give the procedure for getting approval to the Institutions or Authorities providing courses of study & examination.
 - (e) Define – ‘Adulterated Drug’ under the D & C Act, 1940.
 - (f) Give the constitution of Drugs Technical Advisory Board (DTAB).
-

00815

11718

3 Hours / 80 Marks

Seat No.

--	--	--	--	--	--	--	--	--

- Instructions :**
- (1) All Questions are *compulsory*.
 - (2) Answer each next main Question on a new page.
 - (3) Illustrate your answers with neat sketches wherever necessary.
 - (4) Figures to the right indicate full marks.
 - (5) Use of Non-programmable Electronic Pocket Calculator is permissible.

Marks

1. **Attempt any EIGHT :**

16

- (a) Define 'trade' & 'industry'.
- (b) What is drug house management ?
- (c) Define inventory control & enlist its techniques.
- (d) Define trial balance and ledger.
- (e) State two advantages of book keeping.
- (f) State the meaning of : (i) Evaluation & (ii) Compensation.
- (g) Define a balance sheet. How does it differ from profit & loss account statements ?
- (h) Define budget.
- (i) State two qualities of a Salesman.
- (j) Define training and recruitment.
- (k) What is EOQ ? Write the formula to calculate EOQ.
- (l) What is mean by codification of drugs ? Name different methods of codification.

2. Attempt any FOUR:**12**

- (a) What is mean by Aids-to-trade ? Enlist various aids-to-trade. Explain any two of it.
- (b) Explain mail order business. Write its any two disadvantages & advantages.
- (c) State the advantages and disadvantages of channels of distribution.
- (d) State the various points which should be considered for evaluation of pharmacist.
- (e) State various functions of bank.
- (f) Write any six functions to be performed by retailers.

3. Attempt any FOUR:**12**

- (a) What are the different account books ? Mention advantages of journal with its specimen format.
- (b) Explain multiple shop system. State its advantages and disadvantages.
- (c) Define advertising. State various methods of advertising pharmaceutical products.
- (d) State the importance and objectives of purchasing.
- (e) State the difference between general Journal & Ledger.
- (f) Define 'tender'. Explain various types of tenders.

4. Attempt any FOUR :**12**

- (a) What is financial analysis ? List out various methods of financial analysis.
- (b) Define “budgetary control”. Give classification of budgets.
- (c) Define “Partnership”. State various kinds of partners in partnership firm.
- (d) Explain various errors disclosed by a trial balance.
- (e) Explain “window display” as an important and effective form of advertisement.
- (f) Describe ABC technique of Inventory control.

5. Attempt any FOUR :**12**

- (a) What do you mean by scrap ? Describe the procedure for disposal of scrap and surplus.
- (b) Explain departmental stores. State its advantages and disadvantages.
- (c) Explain about various types of middle men in the trade.
- (d) What is mean by ‘Financial Statements’ ? Give a format of
 - (i) Profit & Loss account
 - (ii) Balance Sheet
- (e) Explain the terms : (any **three**)
 - (i) Inventory carrying cost
 - (ii) Lead time
 - (iii) Economic order quantity &
 - (iv) Safety stock
- (f) How will you select site for opening new retail drug store ?

P.T.O.

6. Attempt any FOUR :**16**

- (a) Discuss advantages and disadvantages of co-operative business organization.
 - (b) What is mean by channels of distribution ? Explain various channels of distribution.
 - (c) Explain the terms :
 - (i) Assets
 - (ii) Bad debts
 - (iii) Salesmanship
 - (iv) Debenture
 - (d) What is a cash book ? Describe various types of cash books.
 - (e) Explain various functions of management.
 - (f) Describe finance planning & state the sources of finance.
-

00816

11718

3 Hours / 80 Marks

Seat No.

--	--	--	--	--	--	--	--	--

- Instructions :**
- (1) All Questions are *compulsory*.
 - (2) Answer each next main Question on a new page.
 - (3) Illustrate your answers with neat sketches wherever necessary.
 - (4) Figures to the right indicate full marks.
 - (5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Solve any EIGHT :

16

- (a) Define : (any **two**)
 - (i) Surgical Dressing
 - (ii) Hospital
 - (iii) Drug Tolerance
- (b) Give normal values of (any **two**)
 - (i) Blood sugar
 - (ii) Blood cholesterol
 - (iii) Sperm count
- (c) What advice must be given to patients while using following drugs : (any **two**)
 - (i) MAO Inhibitors
 - (ii) Diazepam
 - (iii) Phenolphthalein

- (d) Mention any four reasons for patient non-compliance.
- (e) Write the objectives of clinical pharmacy (any **four**).
- (f) What do you mean by
 - (i) Lithotripsy
 - (ii) MRI
 - (iii) Crutches
- (g) State the meanings of (any **two**)
 - (i) Anuria
 - (ii) Bradycardia
 - (iii) Hypertension
- (h) Translate into English (any **two**)
 - (i) Guttae
 - (ii) Semel in die
 - (iii) Hora somni
- (i) Mention abnormal constituents of urine with its significance (any **two**).
- (j) What these abbreviations stand for : (any **two**)
 - (i) TPN
 - (ii) SWFI
 - (iii) BAL
- (k) Draw the flow chart for the movement of patients in a typical hospital.
- (l) Write the name of any two types of scissors with their uses.

2. Solve any FOUR: 12

- (a) Write the functions of the Administrator in the hospital.
- (b) Define clinical pharmacy. Write the functions of clinical pharmacist.
- (c) Write content and significance of medication history of patient.
- (d) Differentiate between drug addiction and drug habituation.
- (e) Describe the functions of hospital.
- (f) Write the requirement of equipments for the manufacturing of compressed tablets.

3. Solve any FOUR: 12

- (a) Write a note on addition or deletion of drug in the hospital formulary.
- (b) Describe the procedure for purchasing of drug in the hospital.
- (c) Explain withdrawal symptoms and treatment in Narcotic addiction.
- (d) Explain the abilities required for hospital pharmacist.
- (e) Write the pathophysiology and sign and symptoms of Rheumatoid arthritis.
- (f) Write any two pharmacodynamic drug interactions of drugs.

4. Solve any FOUR : 12

- (a) Differentiate between SVP and LVP.
- (b) Discuss the factors affecting make or buy decision.
- (c) Define ADR. Write drug induced liver disorders.
- (d) Write pathophysiology, signs and symptoms of peptic ulcer.

- (e) Explain the importance of computer in Medication Monitoring in hospital.
- (f) Define teratogen. Explain teratogenicity with examples.

5. Solve any FOUR :**12**

- (a) Write in short about
 - (i) Ryle's tube
 - (ii) Crepe bandage
- (b) Discuss any three examples of analgesic drug interactions.
- (c) Where should the central sterile service department be located in a hospital ?
Draw the layout of CSSD.
- (d) What is drug food interaction ? Explain with examples.
- (e) What is DIB ? Write the need of DIB.
- (f) Discuss about the general steps involved in treatment of poisoning.

6. Solve any FOUR :**16**

- (a) What is Floor Stock Distribution System ? Discuss its merits and demerits.
 - (b) What is PTC ? Write its role in ADR.
 - (c) Classify poisons with examples.
 - (d) Write physiochemical factors affecting on bioavailability. Explain any two physiochemical factors with examples.
 - (e) Classify hospitals on the basis of bed capacity and clinical parameter with examples.
 - (f) Draw the layout of sterile product area. Write about "Aseptic area" for the manufacture of sterile products.
-