

12425

03 Hours / 80 Marks



20221

Seat No.

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- 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.
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Marks

1. **Attempt any SIX of the following:** **30**
 - a) Which route of drug administration have 100% bio-availability and used in emergency conditions? State its any four advantages and disadvantages.
 - b) Explain pharmacological actions of the Acetylcholine. Why Acetylcholine is not used clinically?
 - c) How cancer is treated in different ways?
 - d) Explain Tolerance with its types and examples.
 - e) Enlist and explain the factors affecting absorption of drugs.
 - f) Classify Antihypertensive drugs with examples of drugs.
 - g) How synergism, cumulation and sex modify the actions of drugs.

2. **Attempt any TEN of the following:** **30**
 - a) Classify Antiasthmatic drugs with examples.
 - b) What is preanaesthetic medication? Discuss its importance with drugs.
 - c) Define Haematinics and Anticoagulants along with its examples.
 - d) Explain oral contraceptives with its types or methods.
 - e) Define Miotics and Cycloplegics with examples of drugs.
 - f) Define and classify Diuretic drugs.
 - g) Explain Emetics and skeletal muscle relaxants with examples.
 - h) Why morphine is contraindicated in head injury and Aspirin in peptic ulcer.
 - i) Define Nootropics and Biologicals with one example each.
 - j) Why Adrenaline is used in emergency kit of physician?
 - k) Explain Antihistaminic drugs with examples.

P.T.O.

3. Attempt ALL of the following:

- a) Define pharmacokinetics.
 - b) Enlist four routes under parenteral route of administration.
 - c) Placebos therapy produces.
 - i) Effect on the disease.
 - ii) Psychological relief.
 - iii) Physical relief.
 - iv) None of these.
 - d) Digitalis acts as a drug.
 - i) Cardiotonic
 - ii) Antianginal
 - iii) Antihypertensive
 - iv) All of these.
 - e) Following are the Gastric Antacids except
 - i) Sodium Bicarbonate
 - ii) Magnesium trisilicate
 - iii) Castor oil
 - iv) Aluminium hydroxide
 - f) is used in treatment of Hyperthyroidism.
 - g) Codeine clinically is used as
 - h) Define Mucolytic agents.
 - i) Pilocarpine is used in treatment of
 - j) Penicillin shows as adverse effect.
 - k) Tetracycline is the drug of choice in treatment of which disease?
 - l) Name one Antifungal drug.
 - m) To avoid adverse effect, Isoniazide is taken with –
 - i) Haematinics
 - ii) Purgatives
 - iii) Lactobacillus
 - iv) Pyridoxine.
 - n) Following drugs are avoided in Pregnancy except
 - i) Morphine
 - ii) Ergot
 - iii) Purgatives
 - iv) Folic acid
 - o) Which drug shows ototoxicity as a side effect?
 - p) What is cotrimoxazole?
 - q) Name the antidote for organophosphorus compound poisoning
 - r) Levodopa is always given in combination with
 - s) What is Lithium carbonate used as
 - t) Define Analeptic drug
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Marks

1. Attempt any SIX of the following:

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- a) Define dispensing and write about the dispensing process.
- b) Explain the types of Barriers of patient counselling. Describe the strategies to overcome the barriers.
- c) What is OTC product? Describe the role of pharmacist on OTC product dispensing.
- d) Write about following minor ailments with its symptoms and advice for self care. (Any two)
 - i) Diarrhoea
 - ii) Fever
 - iii) Vomiting.
- e) Describe the legal requirements to set up a community pharmacy.
- f) Write about pharmacy layout and interior design. Draw an Ideal pharmacy layout design.
- g) Explain digital health. What are its benefits? Give the advantages of online pharmacies.

2. Attempt any TEN of the following:

30

- a) Discuss the role of community pharmacist.
- b) Define SOP. State the contents in SOP. Give the benefits of SOP.
- c) Define Auxiliary label and pictogram. Give the auxiliary label for eye preparations and dispersible tablets.
- d) Write about body language as a type of communication.
- e) Describe communication over the telephone.
- f) Define patient counselling. State the patient counselling tips for diabetes.
- g) Enlist the factors influencing medication non-adherence. State the strategies to overcome medication non-adherence.
- h) Give the importance of various health screening services.
 - i) What are the advices given by the pharmacist to the patients in cough and cold.
 - j) Explain the types of cash book.
 - k) Write about VED Analysis.

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Marks

1. Attempt any SIX of the following:

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- a) Define and classify carbohydrates with example. Draw the structure of Glucose and Galactose.
- b) Discuss in brief the steps involved in Glycolysis and give its energetic.
- c) Define the term 'Enzyme'. Enlist the factors affecting enzyme activity. Explain effect of substrate concentration and temperature on rate of enzyme catalysed reaction.
- d) Define proteins. Enlist different types of structure of proteins. Describe secondary structure of proteins.
- e) Explain beta-oxidation of unsaturated fatty acid with energetic of palmitic acid.
- f) Describe lipid profile tests with its clinical significance.
- g) What is biological oxidation ? Explain electron transport chain in details.

2. Attempt any TEN of the following :

30

- a) Give types and functions of lipoproteins.
- b) Give the schematic representation of overall view of TCA cycle.
- c) Explain Watson and Crick model of DNA.
- d) State the causes of
 - i) Phenyl ketonuria
 - ii) Alkaptonuria
 - iii) Ketoacidosis
- e) Define dehydration. Give causes and treatment of dehydration.
- f) Explain different liver function tests.
- g) What are minerals? Give its classification and functions.
- h) Name normal and abnormal constituents of urine. Write significance of abnormal constituents in disease.
- i) What are fatty acids? Classify it based on chemical structure and nutritional requirements with example.
- j) Define and classify vitamins. Give deficiency diseases of vitamin D.
- k) Define anaemia. Explain megaloblastic and sickel cell anaemia.

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Marks

1. Attempt any SIX of the following:

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- a) Write clinical manifestations and pharmacological management of congestive heart failure.
- b) What is peptic ulcer? Write about it's pharmacological management.
- c) What are essential medicines? Explain objectives of pharmacotherapeutics.
- d) Explain treatment of hypothyroidism and hyperthyroidism.
- e) Write pharmacological and non-pharmacological treatment of epilepsy.
- f) Discuss Etiopathogenesis and pharmacological treatment of Urinary tract infections.
- g) Explain the pathophysiology and clinical manifestations of HIV.

2. Attempt any TEN of the following:

30

- a) Discuss in brief about treatment of Parkinson's disease.
- b) Explain any three classes of drugs used in the treatment of pneumonia.
- c) Define COPD. Explain it's aetiopathogenesis.
- d) Discuss any three classes of drugs used in the treatment of hypertension.
- e) Define GERD? Explain it's aetiopathogenesis.
- f) What is premenstrual syndrome? Write about it's clinical manifestations.
- g) Discuss any three classes of drugs used in the treatment of psychosis.
- h) What is antimicrobial resistance? How it can be prevented?
- i) Define glaucoma and explain it's aetiopathogenesis.
- j) Explain the aetiopathogenesis of osteoarthritis.
- k) What is megaloblastic anaemia? Explain it's treatment in brief.

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Marks

1. **Attempt any SIX of the following:** **30**
 - a) Define hospital pharmacy and write scopes of it.
 - b) Define inventory control and enlist method to control it and describe EOQ.
 - c) Enlist the drug distribution systems for inpatients. Explain non-charge floor stock drug distribution systems with its methods.
 - d) Define the ward round participation of pharmacists along with goal and procedure.
 - e) Write the principles and procedure to provide quality Pharmaceutical care.
 - f) Write normal value and clinical interpretation of any 5 CBC tests.
 - g) Define poisoning. Give the general principles for the treatment of poisoning.

2. **Attempt any TEN of the following:** **30**
 - a) Explain in short Robotic automated drug dispensing systems.
 - b) Define GPP. Write the role of pharmacist in satisfying GPP requirements.
 - c) Define I.V. admixture. Write its advantages.
 - d) Write in your own words, the actions required to be taken by the pharmacists to prevent antimicrobial resistance.
 - e) Explain how to dispense radiopharmaceuticals.
 - f) Explain any 3 cold storage devices.
 - g) Explain the electronic health record along with its advantages and disadvantages.
 - h) If drug interaction is caused due to pharmacodynamic interaction, then write the probable mechanism by which interaction could take place.
 - i) Define hospital formulary and write the uses of HF.
 - j) Explain the disposal of antineoplastic wastes.
 - k) Emphasize which strategies are best to minimize medication errors.

3. **Attempt ALL of the following:** **20**
 - a) Write long form of NABH.
 - b) List the warning given for schedule H1 drugs. (Any two)
 - c) _____ should be used as “last resort options”.
 - i) NDPS drugs
 - ii) Reserved antibiotics
 - iii) OTC drugs
 - iv) Emergency drugs
 - d) Define in-patients.

P.T.O.



- e). Radiopharmaceuticals are stored at _____
- 2°C
 - 2-8°C
 - 25°C
 - Below 2°C
- f). Naranjo scale method of causality assessment in ADR is _____
- Global introspection
 - Algorithmic method
 - Probabilistic method
 - Algebraic method
- g). Define HMR
- h). Followings are composition of universal antidote, EXCEPT.
- Milk of magnesia
 - Powdered charcoal
 - Tannic acid
 - Pottasium hydroxide
- i). Define pharmacovigilance.
- j). Inulin clearance is used to assess:
- Renal threshold
 - Concentrating ability of tubules
 - GFR
 - Diluting ability of tubules.
- k). _____ no of pharmacists are required for 300 bedded hospital.
- l). What does FEFO stands for?
- m). Define Bulk compounding.
- n). _____ is an instrument used for measuring changes in volume within an organ or whole body.
- o). What is Anuria.
- p). Write the dose of BAL.
- q). Bilirubin in urine can be detected by which test?
- r). The PVPI, co-ordinated by the Indian pharmacopeia commission, is situated at _____
- s). What will happen if Digitalis and Diuretics prescribe together?
- t). Write the normal value of Blood Cholesterol.
- _____

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Marks

1. **Attempt any SIX of the following:** 30
- a) List ex-officio members and describe the functions of the Pharmacy Council of India.
 - b) Give objective of D&C Act 1940 and Give constitution of DTAB.
 - c) Define:
 - i) Misbranded drug and
 - ii) Adulterated drug as per D&C Act, 1940
 - d) What does following schedule contains as per Drugs and cosmetic Act 1940:
 - i) Schedule A
 - ii) Schedule G
 - iii) Schedule H
 - iv) Schedule N
 - v) Schedule R
 - e) Define 'Bulk drug' as per DPCO and how the retail price of a formulation is calculated?
 - f) Explain the code of ethics by the PCI for the pharmacist in relation to his Job.
 - g) Describe the phases of clinical trials.
2. **Attempt any TEN of the following:** 30
- a) Describe the recommendations of the drug enquiry committee.
 - b) State the classes of drugs prohibited to import as per D&C Act, 1940.
 - c) Give functions of CDL as per D&C Act, 1940 (Any 6)
 - d) Write the qualification required to appoint a government analyst as per D&C Act, 1940.
 - e) Define opium. Addict and coca leaf as per NDPS Act, 1985.
 - f) Define Magic Remedies? State the objectives of drugs and magic remedies Act, 1954.
 - g) State the various rules prescribed by State Government for possession, possession for sale and for sale of poisonous substances under Poison Act, 1919.
 - h) Write any three bonafied reasons for termination of pregnancy under MTP Act, 1971.
 - i) Discuss the documentation and License required for community pharmacy as per good regulatory practices.
 - j) Give difference between Brand name drug and Generic drug.
 - k) Explain the constitution of the national council for clinical establishments.

P.T.O.

3. Attempt ALL of the following:

- a) DTAB has _____ Ex-officio members.
- b) Examples of schedule 'X' except -
 - i) Analgin
 - ii) Amobarbital
 - iii) Pentobarbital
 - iv) Cyclobarbital
- c) Indian veterinary research institute is situated at _____.
- d) CPCSEA stands for _____.
- e) According to 'Prevention of cruelty to Animal Act', 'Animal' means any living creature other than _____.
- f) State any two important things should appear on the label of Food Supplements as per FSSAI.
- g) What does schedule I prescribe as per DPCO.
- h) State any two examples of drug added to the list of NLEM 2021.
- i) Hawking of drugs is a part of ethics related to _____
 - i) Pharmacist in relation to his job
 - ii) Pharmacist in relation to his trade
 - iii) Pharmacist in relation to medical profession
 - iv) Pharmacist in relation to his own profession
- j) MTP Act was passed in year _____.
- k) Role of CDSCO except _____
 - i) Responsible for approval of new drug
 - ii) Conduct of clinical trials
 - iii) Amendments of D&C Act and rules
 - iv) Publish Indian Pharmacopoeia
- l) Write the full form of CDER with respect to pharmacy profession.
- m) State the function of blood bank.
- n) Human Anatomical Waste is discarded in which category as per biomedical waste management schedule.
- o) What is the long form of ICMR.
- p) What are the common bioethical issues?
 - i) Eugenics
 - ii) Euthanasia
 - iii) Organ donation
 - iv) All of these
- q) State the name of bioethical principle.
- r) The consumer protection act was initiated in India in year _____.
- s) National Institute of Disaster Management authority comes under _____
 - i) Ministry of Home Affairs
 - ii) Ministry of Environment
 - iii) Ministry of Pollution
 - iv) Ministry of Foreign Affairs
- t) Give two example of medical device.