

23124

3 Hours / 80 Marks



20221

Seat No.

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- Instructions* –
- (1) All Questions are Compulsory.
  - (2) Illustrate your answers with neat sketches wherever necessary.
  - (3) Figures to the right indicate full marks.
  - (4) Assume suitable data, if necessary.
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Marks

1. Attempt any SIX of the following :

30

- a) Classify antibiotics. Write note on anthelmintics.
- b) What are different route of drug administration ? Write the advantages and disadvantages of IV route.
- c) Describe Oral Hypoglycemic agents with reference to its classification and examples. Why insulin is not used by oral route ?
- d) Discuss different drugs used in the treatment of angina pectoris. Write mechanism of action of any one drug.
- e) Define General Anesthetics. What is Schizophrenia ? Mention drugs used in treatment of Schizophrenia.
- f) i) Give the pharmacological action of adrenaline.  
ii) Classify parasympathomimetics with example.
- g) Write treatment of peptic ulcer by classifying the drugs used and mention mechanism of action of each category.

2. Attempt any TEN of the following :

30

- a) Describe the factor influencing absorption of drug. Explain any one factor.
- b) Classify NSAIDs with examples.
- c) Classify anti-fungals drug with example.
- d) Define and Classify antihypertensive agents with examples.
- e) What is haematinic ? Give uses of anti-coagulant drugs.
- f) Explain the mechanism of action and side effects of Sulphonamides.
- g) What are diuretics ? Explain thiazides as diuretics.
- h) Write note on Anti-thyroid drugs.
- i) Explain triple response of Histamine.
- j) Define Hypnotics. Classify with suitable example.
- k) Write use and one example each of -
  - i) Expectorant
  - ii) Bronchodilator

P.T.O.

**3. Answer ALL questions of the following :**

- a) Drug administered through the following route is most likely to be subjected to first pass metabolism.
- Oral
  - Sublingual
  - Subcutaneous
  - Rectal
- b) Give two examples of neuromuscular blocking agents.
- c) The  $\beta_1$  receptor are located in
- Heart
  - Lungs
  - Kidney
  - Adrenal Gland
- d) Local anesthetics produce:
- Analgesia, amnesia, loss of consciousness
  - Blocking pain sensation without loss of consciousness
  - Alleviation of anxiety and pain with an altered level of consciousness.
  - A stupor or somnolent state.
- e) Give two examples of mydriatics.
- f) If the pressure inside eye is higher than normal person,
- May have cataract
  - May be at risk for glaucoma
  - Need eyeglasses
  - Have infection
- g) Give two examples of drugs used as Nootropic agents.
- h) Phenytoin is used in the treatment of \_\_\_\_\_.
- i) Statins are used in atherosclerosis. State true or false.
- j) Give example of one drug used in treatment of manic depressive illness.
- k) Give example of one thrombolytic agent.
- l) Define laxative.
- m) Anti diuretics are the drugs which have following action
- Increase urine output
  - Decrease urine output
  - Stop urine formation
  - Cause drowsiness
- n) ..... is caused by deficiency of Vitamin D.
- o) The main hormone secreted by the thyroid gland is \_\_\_\_\_.
- p) Give two examples of anti-histaminics.
- q) Mention two drugs used in treatment of cancer.
- r) Name one Anti-TB drugs used in Resistant TB.
- s) Give example of one biological drug.
- t) Define Biologicals.
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**Marks**

- 1. Attempt any SIX of the following:** **30**

  - a) Define prescription. Draw a model format for prescription. Explain various parts of a prescription.
  - b) Discuss/Write the counselling points for Tuberculosis patients.
  - c) Define minor ailment. Describe the self care advice by the pharmacist in pain management.
  - d) Give advantages and disadvantages of online pharmacies.
  - e) Define Finance. Explain the types of finance and sources of finance.
  - f) Define self medication. Write its advantages and disadvantages.
  - g) What is community pharmacy management? What documents are needed while submitting application for retail sale license.
  
- 2. Attempt any TEN of the following:** **30**

  - a) Define patient counselling. What are the benefits of patient counselling?
  - b) Write social and economic factor influencing adherence to prescribed medication.
  - c) Give the importance of health screening services at community pharmacy.
  - d) Define OTC medicines. What are the probable risks of taking OTC medicines?
  - e) Describe the oral communication skill.
  - f) Describe the professional responsibilities of a community pharmacist.
  - g) Define Audits. Give any four benefits of audits in community pharmacy.
  - h) What is communication? Write short note on body language as effective communication.
  - i) Define auxiliary label. Give advantages of pictogram.
  - j) Give criteria for vendor selection for supplying medicine in community pharmacy.
  - k) Define community pharmacy, community pharmacist and independent pharmacy.
  
- 3. Attempt all questions.** **20**

  - a) GPP guidelines for community pharmacy are drafted by the 1 PA in the year \_\_\_\_\_.
  - b) Patient counselling helps to motivate the patient to take medicine for improvement of his/her health status : TRUE / FALSE
  - c) Sphgmomanometer is used to measure \_\_\_\_\_.
  - d) What is standard operating procedure?
  - e) Define patient package inserts.

P.T.O.



- f) The extent to which patients take medication as prescribed by prescriber is called \_\_\_\_\_.
- g) As per drugs and cosmetic rules, 1945, which one of the following rule indicate the presence of pharmacist is legally required during the dispensing and selling of medicines.
- i) Rule 45(15)
  - ii) Rule 65(25)
  - iii) Rule 65(15)
  - iv) Rule 75(15)
- h) The prescriber indicates the direction for the patient, for the use of the medication in the portion of the prescription is called as \_\_\_\_\_.
- i) Restricted salt intake is recommended in \_\_\_\_\_.
- i) High Blood pressure
  - ii) Low Blood Pressure
  - iii) Diabetes
  - iv) Asthma
- j) Body Mass Indexing (BMI) is the most common screening test for \_\_\_\_\_.
- k) ORS is used in the management of \_\_\_\_\_.
- l) Self medication should not be done with prescription medicine : TRUE / FALSE
- m) What is book of original entry?
- n) The minimum floor space specified for operating a retail pharmacy is \_\_\_\_\_.
- o) Who is the Licensing Authority for issuing retail sale license?
- p) In Finance, what business owns is called as \_\_\_\_\_.
- q) Morphine is not used as OTC medicine due to chance of abuse : TRUE / FALSE
- r) Ambient temperature should be maintained in the pharmacy within the required range to prevent \_\_\_\_\_ of medicines.
- s) From the following features, what is applicable to petty cash?
- i) Small amount of cash
  - ii) Used for minor expenses
  - iii) Is easy and quick way for payment
  - iv) all of the above
- t) As per Drug price control order 2013, a community pharmacies have the liberty to sell medicines at a price to maximise the profit : TRUE / FALSE
- \_\_\_\_\_

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**Marks**

**1. Attempt any SIX of the following :**

**30**

- a) Explain the various structural levels of proteins.
- b) Discuss the pathway for the conversion of glucose to pyruvate.
- c) Explain the mechanism of action of enzymes with various theories.
- d) Explain Kreb's cycle.
- e) What is dehydration? What are the causes of dehydration? Write a note on ORS.
- f) Enlist various functions of the liver. What are the routinely performed tests for assessing the functions of the liver?
- g) Define Lipids. Write about the structure and functions of Cholesterol in the body. Enlist any two properties of triglycerides.

**2. Attempt any TEN of the following :**

**30**

- a) Draw structure of any three reducing monosaccharides.
- b) Define carbohydrates. Classify them.
- c) What are nucleosides and nucleotides?
- d) Enlist factors affecting enzyme action.
- e) Explain ETC chain.
- f) Write the functions of Calcium and its deficiency diseases.
- g) Which pathological conditions are observed due to abnormal constituents in urine?
- h) Discuss Glycogenesis.
- i) What is Lymphocytosis, Lymphocytopenia, Phenylketonuria?
- j) Write the functions of any three fat soluble vitamins.
- k) Discuss diseases related to abnormal carbohydrate metabolism.

**3. Attempt the following :**

**20**

- a) Define Anemia.
- b) Which of the following is a sulphur containing amino acid.
  - i) Alanine
  - ii) Glycine
  - iii) Methionine
  - iv) Valine.
- c) Enlist any two routinely performed Kidney function tests.
- d) Name any two lipid profile tests.

P.T.O.



- e) What are the coenzymes of Riboflavin and Nicotinic acid.
- f) Which of the following diseases is caused by the deficiency of Niacin?
- Scurvy
  - Rickets
  - Pellagra
  - Pernicious anaemia.
- g) Explain "Fatty liver".
- h) Alkaptonuria is a disease related to .....
- i) Define Essential Amino acids.
- j) When glucose reacts with bromine water it forms –
- Glutaric acid
  - Glyceraldehyde
  - Saccharic acid
  - Gluconic acid
- k) Name any two diseases due to malnutrition of proteins.
- l) Which of the following is essential fatty acid has three double bond?
- Linolenic acid
  - Arachidonic acid
  - Linoleic acid
  - Clupanodonic acid.
- m) Stearic acid has ..... Carbon atoms.
- n) Name of Vitamin A is .....
- o) Hypercholesterolemia is caused due to .....
- p) Write full form of SGOT and SGPT.
- q) Jaundice is a symptom of disease. True or False.
- r) What is the significance of BUN.
- s) Chloride and Bicarbonate ions occur predominantly in .....
- t) Identify the purine base of nucleic acids in the following –
- Cytosine
  - Thymine
  - Uracil
  - Adenine.
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Marks

1. Attempt any SIX of the following:

30

- a) Explain the clinical manifestation and pharmacological and non-pharmacological Management of diabetes Mellitus.
- b) Write scope and objectives of pharmaco-therapeutics.
- c) What is hyperlipidemia? Explain Etiopathogenesis of it.
- d) Explain clinical manifestation of epilepsy. Describe it's pharmacological and Non-pharmacological management of epilepsy.
- e) What is Tuberculosis? Explain etiopathogenesis and clinical Manifestation of Tuberculosis.
- f) Define and explain types, etiopathogenesis of peptic ulcer.
- g) Describe pharmacological and non-pharmacological management of Hepatitis.

2. Attempt any TEN of the following:

30

- a) What is glaucoma? Explain clinical manifestation of glaucoma.
- b) Explain pharmacological Management of Iron deficiency anaemia.
- c) Explain etiopathogenesis of Depression.
- d) Enlist the clinical Manifestation of Covid-19.
- e) Describe pharmacological management of Hypertension.
- f) What are three stages of ALD (Alcoholic Liver Disease)?
- g) Explain etiopathogenesis of Rheumatoid arthritis.
- h) Discuss prevention of anti-microbial resistance.
- i) Explain pharmacological Management of Parkinson's disease.
- j) What is polycystic ovary syndrome. Mention its clinical manifestations.
- k) Define emphysema and chronic Bronchitis mention clinical manifestations of COPD.

3. Attempt ALL of the following:

20

- a) What is normal value of blood pressure.
- b) Define COPD.
- c) Parkinson's disease caused by loss or degeneration of ----- Neurons in the substantia Nigra for midbrain.
- d) HIV stand for -----.
- e) Salbutamol is in the treatment of -----.

P.T.O.



- f) Name drugs used in treatment of Malaria.
- g) What is dysmenorrhea?
- h) What is Psoriasis?
- i) What is angina pectoris?
- j) Hyperthyroidism is caused by -----.
- Grave's disease
  - Hashimoto's disease
  - Iron deficiency
  - Thyroid hypoplasia
- k) Define GERD.
- l) Sulfa drug used in the inflammatory Bowel disease include -----
- Sulfasalazine
  - Sulfamethaxazole
  - Sulfapyridine
  - Sulfadoxine
- m) What is synonym for Eczema?
- n) PCOS stands for -----.
- o) Define Schizophrenia.
- p) Migraine is ----- disorder.
- Vascular
  - Pulmonary
  - Neurovascular
  - Cardiovascular
- q) Name causative organism of scabies.
- r) GAD stands for -----.
- s) The use of at least five drug daily by an individual is -----.
- Polypharmacy
  - Monopharmacy
  - Pharmacy
  - Monotherapy
- t) Megaloblastic Anaemia is a types of -----.
- Microcytic
  - Macrocytic
  - Normocytic
  - Normochromic
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Marks

1. **Attempt any SIX of the following :** 30
  - a) Define ward round participation. Write the goal procedure of Ward round participation by clinical pharmacist.
  - b) Define Inventory control. Enlist their methods and describe in detail "Economic Order Quantity" Method.
  - c) Explain distribution and storage of NDPS in hospital.
  - d) Define Drug information centre and Poison information centre. Write the various sources of drug information with examples.
  - e) Enlist Different Test of Liver Functioning and explain any two of them.
  - f) Define medication errors. Write various strategies to minimise medication errors.
  - g) Define National Accreditation Board for Hospital and write its benefits and Role of Pharmacist in it.
  
2. **Attempt any TEN of the following :** 30
  - a) Define Hospital Pharmacy and write its scope.
  - b) Define Drug related problem and classify it.
  - c) Explain the Dispensing of Radiopharmaceuticals.
  - d) Write about any 3 equipments used for maintaining cold storage condition.
  - e) Define PTC and write the functions and scopes of the committee.
  - f) Define Hospital formulary and write about contents of Hospital formulary.
  - g) Enlist different software used in pharmacy and explain pharmacy management software.
  - h) Write in brief about Drug Food Interaction with example.
  - i) Define unit dose drug distribution with its advantages and disadvantages.
  - j) Define Total Parenteral Nutrition with its contents.
  - k) Write various storage conditions with temperature as per I.P.
  
3. **Attempt ALL of the following :** 20
  - a) Define clinical pharmacy.
  - b) Give the dose for BAL Antidotes.
  - c) Define the term HMR.
  - d) Give the composition of Universal Antidotes.

P.T.O.



- e) Give the meaning of following Latin term:
- Auristille
  - Ante jentaculum
- f) Define Radiopharmaceuticals.
- g) Define Anit-natal care.
- h) Blood Pressure can be measured by -----.
- i) Pharmacist required for 100 bed Hospital
- 02
  - 05
  - 05
  - 08
- j) AST has a wide distribution in
- Tissue
  - Cardiac
  - Renal
  - Blood
- k) Give the full form of ASHP.
- l)  $T_3$  and  $T_4$  mainly for
- Mental functioning
  - Physical functioning
  - Body Temperature
  - All the above.
- m) The patients who come to the hospital with general symptoms like fever, cough and cold are known as -----.
- n) Thyrocalcitonin is used to maintain.
- Phosphate level
  - Mg level
  - CAL level
  - None
- o) Give the ingredients in TPN.
- p) What are Reserved antibiotics.
- q) Define pharmacovigilance.
- r) Vitamins store in
- Room temp
  - Freezer
  - Cold temp
  - Cool temp
- s) Where is the WHO ADR monitoring centre situated?
- t) Which disposal method used for cytotoxic drugs.
- Incineration Method
  - Disposal to Sewers
  - Directly to land fill
  - All the above

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  - (7) Answer as per latest amendments.
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**Marks**

**1. Attempt any SIX of the following:**

**30**

- a) Discuss the qualification and Duties of Drug Inspector.
- b) Discuss the constitution and function of PCI.
- c) What is clinical trial and explain various phases of clinical trail.
- d) Discuss the various functions of CDL as per Drug and Cosmetic Act 1940.
- e) What is the role of pharmacist in relation to his job as per code of ethics.
- f) Give constitution of DTAB.
- g) Discuss the objective DPCO and the Retail Price of Drug is calculated.

**2. Attempt any TEN of the following:**

**30**

- a) Define Magic remedies and give exempted advertised under DMR Act. 1954. (any four)
- b) Explain the BCS System of classification.
- c) Give general principles of law.
- d) What are the powers of Drug Inspector as per D&C Act, 1940.
- e) Discuss certain operations controlled by Central Govt. under NDPS Act. 1985
- f) Discuss the qualification of Government Analyst.
- g) Discuss documentation, licenses and renewal procedure in Hospital pharmacy.
- h) Define 'Misbranded drug' as per D & C Act, 1940.
- i) Discuss the rules prescribed by the State Government in relation to possession and possession for sale of poison.
- j) What are the functions of the National Council for Clinical Establishment.
- k) Give bonafide reasons for termination of pregnancy under M.T.P., 1971.

P.T.O.

3. Attempt ALL of the following:

- a) FSSAI stands for -----.
- b) The HQ of CDSCO is located at -----.
  - i) Mumbai
  - ii) Delhi
  - iii) Chennai
  - iv) Kolkata
- c) How often we donate blood.
  - i) After 24 hours
  - ii) After 3 hours
  - iii) After 3 months
  - iv) After 6 months
- d) ----- is celebrated as World Consumer Day.
  - i) 10 April
  - ii) 15 March
  - iii) 28 Feb
  - iv) 1 Jan
- e) The full form of IAEC is -----
  - i) Institutional Animal Ethics Committee
  - ii) Institutional Animal Ethics Corporation
  - iii) Institutional Animal Education Committee
  - iv) None of above
- f) Give a function of CPCSEA.
- g) Medical Device Class III is stands for -----.
- h) What does schedule 'S' prescribes under D & C Act, 1940.
  - i) MTP Act was passed in year.
- j) The provision of DPCO are implemented and enforced by -----.
  - i) DPEA
  - ii) NPPA
  - iii) MAPE
  - iv) None of above
- k) Give full form NLEM .....
- l) Give one function of National Institute of Disaster Management.
- m) Give functions of DTAB.
- n) Pharmacist is liaison between ----- & -----.
- o) Define 'Bioethics'.
- p) For glass bottle and broken glass articles which bag is used as per biomedical Waste Management Act.
- q) State the long form of ICMR.
- r) Enlist the principles of bioethics.
- s) Indian Veterinary Research Institute is situated at -----.
- t) What is Good Regulatory Practices?