

23242

3 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.
 - (6) In case student has attempted subquestion of Question No. 3, more than once, only first attempt should be considered for assessment.

Marks

1. Attempt any SIX of the following:

30

- a) Define drug absorption and drug distribution. Explain two mechanisms of drug absorption with examples.
- b) Classify parasympathomimetics with examples. Why is acetylcholine not used in clinical practice?
- c) Classify general anesthetics with examples. Describe various stages of general anesthesia.
- d) Classify antihypertensive agent with examples. Give mechanism of action of ACE inhibitors.
- e) Classify antiulcer agents. Why is aluminium hydroxide combined with magnesium hydroxide in antacid formulations nowadays?
- f) Differentiate between sulfonylureas and biguanides. Why insulin is not administered orally to diabetic patient?
- g) Explain broad-spectrum antibiotics with examples. Why is amoxicillin given in combination with lactobacillus in pediatrics?

2. Attempt any TEN of the following:

30

- a) Explain sublingual route with example of drugs. Give its advantages.
- b) Classify NSAIDs with examples of drugs.
- c) Define tranquilizers. Why is chlorpromazine marketed under the brand name Largactil?
- d) What is atherosclerosis? Explain the drugs used in treatment of atherosclerosis.
- e) Define hematinic. Why are vitamin B12 injections given in pernicious anaemia?
- f) Define bronchodilators. Explain management of status asthmaticus.
- g) Give classification and therapeutics uses of diuretics.
- h) Define oral contraceptives. Explain mechanism of action of hormone based oral contraceptives for females.
- i) Define autocoids. Explain triple response of histamine.
- j) Classify anticancer agents with examples of drugs.
- k) Explain DOTS therapy. Why is pyridoxine supplementation given in combination with isoniazid?

P.T.O.

**3. Attempt ALL of the following:**

- a) Define placebo effect.
- b) Write two drugs used in treatment of shock.
- c) Streptokinase is used as?
 - i) Antimalarial agent
 - ii) Antimicrobial agent
 - iii) Fibrinolytic agent
 - iv) Antidepressant agent
- d) Corticosteroids are used in treatment of _____.
 - i) Bronchial asthma
 - ii) Allergic diseases
 - iii) Rheumatoid arthritis
 - iv) All of the above
- e) ORS stands for _____.
 - i) Oral Retention Salt
 - ii) Osmotic Rehydration Salt
 - iii) Oral Rehydration Salt
 - iv) Osmotic Retention Salt
- f) Diazepam is _____.
 - i) Antianxiety drug
 - ii) Muscle relaxant
 - iii) Antiepileptic drug
 - iv) All of the above
- g) Which of the following drugs is a carbonic anhydrase inhibitor?
 - i) Furosemide
 - ii) Amiloride
 - iii) Spironolactone
 - iv) Acetazolamide
- h) Give two therapeutic uses of Propranolol.
- i) Give one example of neuromuscular blocking agents and local anaesthetic.
- j) Define nootropics.
- k) Write side effects of atropine and aspirin.
- l) Give two drug used in treatment of glaucoma.
- m) Write therapeutic use of ondansetron.
- n) Define biological product.
- o) Write therapeutic use of Metronidazole.
- p) _____ drug is contraindicated in anaphylactic shock.
- q) _____ and _____ are two examples of biological products.
- r) _____ is a mydriatic.
- s) TCA drugs stands for _____.
- t) Therapeutic use of propylthiouracil is _____.

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Marks

1. Attempt any SIX of the following:

30

- a) Give the characteristics of ideal pharmacy interior design.
- b) Mention the causes of dispensing errors. Give strategies to minimize dispensing errors.
- c) Define patient counselling. Discuss the patient counselling points for hypertensive patients.
- d) Explain the role of pharmacist in OTC medication dispensing.
- e) What factors need to be considered while selecting a site for setting up a community pharmacy?
- f) Define Diarrhea. Describe the causes, symptoms and self-care advice for management of Diarrhea.
- g) Enlist various inventory control techniques useful for community pharmacy. Explain any two techniques in detail.

2. Attempt any TEN of the following:

30

- a) What are the factors to be considered while selecting the vendors to supply the medication material in community pharmacy?
- b) Define communication skills. Enlist the points to make telephonic conversation effective.
- c) Explain the procedure of measuring capillary blood glucose level by using glucometer.
- d) Define community pharmacy. Explain the current scenario of community pharmacy in India.
- e) What are the advantages and disadvantages of self-medication.
- f) What are the professional responsibilities of community pharmacist?
- g) What documents are required to open a new retail drug store?
- h) Write a note on handling of prescription.
- i) Explain the importance of body language with respect to posture and eye contact.
- j) What are the benefits of patient counselling?
- k) What are the patient related factors for medication non-adherence?

P.T.O.

3. Attempt ALL of the following:

- a) Define finance.
- b) Define self-medication.
- c) COPD stands for _____.
- d) Stadiometer measures the _____ of the patient.
- e) Define pharmaceutical pictogram.
- f) Define daybook.
- g) Define patient package insert.
- h) The drugs enquiry committee was formed in which year and who headed the committee?
- i) The minimum floor space specified for operating a retail pharmacy is _____.
- j) Define SOP.
- k) What is the full form of DOTS?
- l) Lead time is _____.
 - i) Time to get the supply after ordering.
 - ii) Ideal time to order supply.
 - iii) Time to order economic order quantity.
 - iv) None of the above.
- m) GPP for community pharmacy setting is developed by _____.
 - i) WHO and FIP
 - ii) WHO and UNICEF
 - iii) FIP and UNICEF
 - iv) WHO
- n) Cash memo is the testimony of _____.
 - i) Purchase record
 - ii) Sales record
 - iii) Counselling record
 - iv) None of the above
- o) A patient is considered adherent if he takes _____ % of their medications as prescribed.
- p) Household remedies are listed in schedule _____ of drugs and cosmetics rules.
- q) Which of the following health screening services in non-invasive?
 - i) Blood glucose level
 - ii) Blood pressure level
 - iii) Blood haemoglobin level
 - iv) Blood lipid level
- r) Medicines like Ibuprofen, Naproxen are _____.
 - i) OTC in India
 - ii) Schedule H in India
 - iii) Schedule X in India
 - iv) Schedule G in India
- s) Define digital health.
- t) Storage at cold condition indicates _____.
 - i) Keeping below 0°C
 - ii) Keeping at 0°C
 - iii) Keeping at 0°C to -18°C
 - iv) Keeping at 2°C to 8°C

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20223

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Marks

1. Attempt any SIX of the following:

30

- a) Define carbohydrate and write classification with examples.
- b) What are Proteins? Briefly explain their biological role. Explain secondary structure of proteins.
- c) Discuss different factors affecting enzyme activity.
- d) What is kreb cycle? Mention steps in kreb cycle.
- e) Explain biological oxidation with ETC and oxidative phosphorylation.
- f) Discuss urea cycle and decarboxylation.
- g) Discuss the functions of liver. Explain liver function test.

2. Attempt any TEN of the following:

30

- a) Draw the structure and enlist any two functions of cholesterol in the body.
- b) Explain the following -
 - i) Triglycerides
 - ii) Fatty liver
 - iii) Emulsification test
- c) Explain the structure of DNA.
- d) Describe Vitamin A. Its chemical nature and deficiency diseases.
- e) Give an account of metabolism of fats with reference of β -oxidation.
- f) What are ketone bodies? Discuss formation of Ketone bodies.
- g) Give the functions of following -
 - i) Sodium
 - ii) Chloride
 - iii) Cobalt
- h) What is dehydration? Discuss its causes and ORT.
- i) Write in detail about renal function test.
- j) Discuss about abnormal constituents of urine and their significance.
- k) Write about abnormal RBCs and related diseases.

P.T.O.

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20224

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Marks

1. Attempt any SIX of the following:

30

- a) Write the pharmacological and non-pharmacological management of diabetes mellitus.
- b) Explain the clinical manifestation and non pharmacological management of hypertension.
- c) Give the definition of pharmacotherapeutics and mention the objectives of pharmacotherapeutics.
- d) Write about clinical manifestation of Parkinson's disease. Explain pharmacological treatment of Parkinson's disease.
- e) Give the etiopathogenesis of tuberculosis. Explain the pharmacological management of tuberculosis.
- f) What is alcoholic liver disease? Write about its clinical manifestation and Non pharmacological management.
- g) What is SARS-COV-2? Give the clinical manifestation and Non pharmacological management of SARS-COV-2.

2. Attempt any TEN of the following:

30

- a) Define Hyperlipidaemia. Discuss pharmacological treatment of Hyperlipidaemia.
- b) Write about the causes and symptoms of Megaloblastic Anaemia.
- c) Define Epilepsy. Discuss classification of Epilepsy.
- d) What do you mean by COPD? Explain its Etiopathogenesis.
- e) Define osteoarthritis. Give the Etiopathogenesis of Osteoarthritis.
- f) Discuss any three classes of drugs used in the treatment of peptic ulcer.
- g) Discuss etiopathogenesis and of anxiety.
- h) Define standard treatment guideline as per W.H.O. Mention any four advantages of standard treatment guidelines.
- i) Define Glaucoma. Explain its clinical manifestation.
- j) What is Dysmenorrhea? Write about its clinical manifestation.
- k) What are the strategies for overcoming antibacterial resistance?

P.T.O.

**3. Attempt ALL of the following:**

- a) Write full form of GERD.
- b) Name the drug of choice for the treatment of Hyperlipidemia.
- c) Which of the following drug as diuretic given in the patient with Hypertension.
 - i) Minoxidil
 - ii) Montelukast
 - iii) Chlorothalidone
 - iv) Verapamil
- d) Name any two types of Asthama.
- e) Define polycystic ovary syndrome.
- f) Give two examples of drugs which are used in Dysmenorrhea.
- g) _____ is the life threatening medical condition caused by the rupture of blood vessels in the brain.
- h) Deficiency of which two vitamins that causes the megaloblastic anemia.
- i) Name any two gastrointestinal disorder diseases.
- j) In human, scabies is caused by a tiny itch mite _____.
- k) Define Psoriasis.
- l) Syphilis is caused by the bacterium _____.
- m) The thyroid gland is responsible for production of _____ and _____ thyroid hormones.
- n) Which drug is used in Parkinson's disease as dopamine precursor?
- o) Name the two bronchodilator drugs used to treat Asthama.
- p) Ibuprofen is used for the treatment of
 - i) Psoriasis
 - ii) Diabetes
 - iii) Migraine
 - iv) Anemia
- q) _____ is the good cholesterol in blood
 - i) HDL
 - ii) LDL
 - iii) VLDL
 - iv) Triglycerides
- r) Define rational use of medicines as per WHO.
- s) What are the symptoms of bacterial conjunctivitis?
- t) _____ is defined as a burst of electrical activity in the brain's neurons
 - i) Depression
 - ii) Arthritis
 - iii) COPD
 - iv) Seizures

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20225

Seat No.

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Marks

1. Attempt any SIX of the following:

30

- a) What is inventory control? Enlist different techniques of inventory control. Explain economic order quantity method.
- b) Write down mission, requirements and elements of GPP (Good Pharmacy Practices).
- c) Define medication error. Write the consequences and strategies to minimize medication errors.
- d) Enlist daily activities of clinical pharmacist and comment on 'Pharmacist as a patient counselor'.
- e) Define and classify poison with suitable examples.
- f) Classify liver function tests. Give normal values of
 - i) Total serum bilirubin
 - ii) Serum albumin
 - iii) Serum globulin
 - iv) Albumin / globulin ratio
- g) Enlist methods of drug distribution. Explain complete floor stock system with it's advantages and disadvantages.

2. Attempt any TEN of the following:

30

- a) Define radiopharmaceuticals. Give various methods of disposal of radiopharmaceuticals.
- b) Explain FEFO and FIFO methods with it's advantages and disadvantages.
- c) Write about NABH accreditation including its benefits to patient and hospital.
- d) Explain unit dose dispensing system with its advantages and disadvantages.
- e) Comment on total parenteral nutrition include definition, content and indications for use.
- f) Enlist different disposal methods of drugs. Explain any two methods in detail.
- g) What is the meaning of LASA drugs? Give the measures to avoid LASA errors.
- h) Write the composition and functions of PTC.
- i) Enlist applications of computers in hospital pharmacy practice. Give benefits of EHR's.
- j) Define and write scope of clinical pharmacy.
- k) Explain the role of pharmacist in preventing antimicrobial resistance.

P.T.O.

3. Attempt ALL of the following:

- a) FIP stands for _____.
- b) Give the meaning of following Latin terms -
i) Unguentum ii) Mistura
- c) Decreased value of creatinine clearance indicates _____.
- d) Requirement of pharmacist for hospital with bed strength upto 500 is _____.
- e) Define polypharmacy
- f) ICCU stands for -
- g) Higher TSH value indicates Hypothyroidism.
i) True ii) False
- h) Define bulk compounding.
- i) Schedule _____ was introduced for restricting the sale of antibiotics through OTC sales.
- j) Give the following Latin abbreviations :
i) b.i.d. ii) SOS
- k) Give the composition of universal antidote.
- l) Write significance of increased ESR.
- m) Pharmacovigilance continue throughout -
i) Post marketing surveillance ii) Pre marketing surveillance
iii) Pre and post marketing surveillance iv) None of the above
- n) _____ numbers of copies of purchase order prepared.
i) 5 ii) 7
iii) 3 iv) 4
- o) Antidote for heavy metal poisoning is
i) Atropine ii) EDTA
iii) BAL iv) Physostigmine
- p) Enlist thyroid function tests.
- q) Identify a drug which is not reserved antibiotic.
i) Linezotide ii) Colistin
iii) Tetracycline iv) Polymyxin-B
- r) The use of Xenon-133 gas (Xe-133)
i) Pulmonary scan ii) Live scan
iii) Brain scan iv) All of the above
- s) Write any two points to be covered while taking medication history.
- t) Define pharmacovigilance.
- _____

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20226

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		1	2	4	4	4	6
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Marks

1. Attempt any SIX of the following:

30

- a) Define education regulation. Describe it in detail and define 'Central Register'.
- b) Give the constitution and functions of Drugs Technical Advisory Board.
- c) Discuss the ethics of pharmacists in relation to his job as per the code of pharmaceutical ethics.
- d) Give the functions of Central Drug Laboratory (CDL).
- e) Give the formula for calculation of retail price of drug formulation and explain the terms involved in it as per DPCO, 1995 and define 'Ceilling Price'.
- f) What is clinical trial and explain various phases of clinical trials.
- g) Define government analyst. State qualifications for appointment of government analyst as per D and C Act, 1940.

2. Attempt any TEN of the following:

30

- a) Write the classes of drugs and cosmetics prohibited for manufacture as per D and C Act and Rules.
- b) Give any three bonafide reasons for termination of pregnancy under Medical Termination of Pregnancies Act, 1971.
- c) Describe documentation, licenses and renewals of pharma manufacturing as per good regulators practices.
- d) Write recommendation of 'Drug Enquiry Committee'.
- e) State the classes of prohibited advertisements as per DMR Act, 1954. (any three)
- f) What are the labelling particulars required to appear on label of 'Ophthalmic preparations'.
- g) Define 'Poison' as per Poison Act, 1919 and name any two poisons specified in list 'A' and list 'B' each.
- h) Write penalties for punishment for contravention in relation to coca plant under NDPS Act and the rules.
- i) Define 'Repacking of drugs' and state any four conditions for grant of repacking licence.
- j) Differentiate Brand name and Generic name of drugs.
- k) What are the functions of the National Council for clinical establishments?

P.T.O.

3. Attempt ALL of the following:

- a) Define 'Chemist and Druggist'.
 - b) Clandestine arrangements as per code of pharmaceutical ethics means.
 - i) Secret agreements
 - ii) Pharmacist may render first aid to victim
 - iii) Link between medical profession and public
 - iv) All of the above
 - c) CPCSEA stands for _____.
 - d) What does schedule G to the rules prescribes?
 - e) Give function of Food Authority.
 - f) What is the objective of DPCO. (any two)
 - g) Name of local body which allow experiments on small animals?
 - i) CPCSEA
 - ii) IAEC
 - iii) IACE
 - iv) IECC
 - h) Medical termination of Pregnancy Act was passed in _____.
 - i) For production from basic stage post tax return of _____ on net worth is considered.
 - i) 10%
 - ii) 20%
 - iii) 8%
 - iv) 18%
 - j) Give two examples of schedule J.
 - k) State the principles of biethics.
 - l) Mention different classes of medical devices.
 - m) GRP stand for _____.
 - n) 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
 - o) Who is the head of the Central Authority's Investigation wing?
 - i) Police Inspector
 - ii) Director General
 - iii) Magistrate
 - iv) Police Commissioner
 - p) ICMR stands for _____.
 - q) Who is the head of Central Drugs Standards Control Organization. (CDSCO)
 - r) Human Anatomical waste is categorised in which colour bag as per Biomedical Waste Management Act.
 - s) Minimum haemoglobin require to donate blood is _____.
 - t) Define 'Bioethics'.
-