

23242

3 Hours / 80 Marks



20112

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.

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

- a) Draw the structure of chlorpromazine hydrochloride give its IUPAC name, therapeutic uses, formulations and brand names.
- b) Draw the structure, IUPAC name, uses, formulations, and brand names of propranolol.
- c) Enlist various sources of impurities in pharmaceuticals. Write any 4 effects of impurities.
- d) Write uses of the following drugs:
 - i) Ketoconazole
 - ii) Chloroquine
 - iii) Norfloxacin
 - iv) Remdesivir
 - v) Pretomanid
- e) Enlist two examples and uses for each of the following -
 - i) Medicinal gases
 - ii) Dental Products
- f) Define Antibiotics. Classify antibiotics based on chemical structure.
- g) Explain complexometric titrations and Acid-base titrations.

2. Attempt any TEN of the following:**30**

- a) Enlist any 3 α -adrenergic blockers and any 3 β -adrenergic blockers.
- b) Classify Anti-arrhythmic agents with examples.
- c) Explain the principle and procedure involved in the limit test for sulphates.
- d) Classify Non-steroidal anti-inflammatory agents with suitable examples.
- e) Explain principle and reactions in the Assay of Ferrous sulfate.
- f) Draw the structure of Metformin, write its uses and enlist brand names.
- g) Classify Anti-depressants with examples. Draw the structure of Imipramine.
- h) Draw the structure of Isoniazid, write its IUPAC name and enlist any 2 brand names.
- i) Write uses of -
 - i) Chloramphenicol
 - ii) Streptomycin
 - iii) Azithromycin.
- j) Draw the structure of 5-Fluorouracil and enlist its uses and write its storage condition.
- k) Draw the structure of Frusemide and give its storage condition and uses.

P.T.O.

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

- a) Write the use of lead acetate cotton plug in a limit test for arsenic.
- b) Draw structure of Furan ring.
- c) Pyrimidine ring contains two nitrogen atoms at _____ and _____ position.
 - i) 1 and 2
 - ii) 1 and 4
 - iii) 1 and 3
 - iv) 2 and 3
- d) Name any 2 anticonvulsant drugs.
- e) Mordant Black is used in _____ type of titration.
 - i) Acid-Base
 - ii) Redox
 - iii) Oxidation
 - iv) Complexometric
- f) Draw structure of Pyridine ring.
- g) Which antacid produce carbon di-oxide?
 - i) Aluminum hydroxide
 - ii) Calcium carbonate
 - iii) Magnesium hydroxide
 - iv) All of these
- h) Choose INCORRECT statement (s) -
 - a) Heterocyclic rings are not aromatic.
 - b) Thiazole have oxygen and nitrogen as hetero atoms.
 - c) Pyrrole is five-membered heterocyclic ring.
 - i) a only
 - ii) b only
 - iii) a and b
 - iv) a, b and c
- i) Enlist any two examples of cathartics.
- j) Fill in the blank.
Captopril contains _____ heterocyclic ring.
- k) Choose INCORRECT statement (s) -
 - a) Chlorpromazine is used in the treatment of Schizophrenia.
 - b) Risperidone is first generation typical anti-psychotic.
 - c) Phenobarbitone is used to induce epilepsy in rats.
 - i) a only
 - ii) b only
 - iii) b and c
 - iv) a and b
- l) Enlist the uses of Isosorbide dinitrate.
- m) Enlist example of anti-cancer agent from anti metabolites.
- n) The following analgesic lacks anti-inflammatory action
 - i) Ibuprofen
 - ii) Paracetamol
 - iii) Diclofenac Sodium
 - iv) Piroxicam
- o) Name one high ceiling diuretic.
- p) Which of the following is an inhibitor of cyclooxygenase.
 - i) Aspirin
 - ii) Pethidine
 - iii) Pentazocin
 - iv) All of these
- q) Name any 2 tetracyclines.
- r) The following is a anticholinergic agent.
 - i) Prazosin
 - ii) Phentolamine
 - iii) Yohimbine
 - iv) Atropine
- s) Draw the structure of Dapsone.
- t) Which of the following drug is direct acting cholinomimetic agent?
 - i) Pyridostigmine
 - ii) Physostigmine
 - iii) Acetyl Choline
 - iv) Parathion