23124 3 Hours / 80 Marks



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.

Seat No.

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

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1. Attempt any SIX of the following :

- a) Define the term Impurity. Discuss any four sources of impurities in pharmaceuticals.
- b) What do you mean by volumetric analysis? Give it's classification depending on chemical reactions with one example each.
- c) Define Gastrointenstinal agents classify with examples. Give uses of sodium bicarbonate and magnesium hydroxide.
- d) Draw the structure of Haloperidol. Give it's chemical name, uses, formulations and popular brand names.
- e) State what are sympathomimetic drugs? Classify and give the structure and uses of Nor-Epinephrine.
- f) Define and classify antimalarial drugs with example. Give structure and uses of chloroquine phosphate.
- g) Define and classify antibiotics giving suitable examples. Give structure and uses of chloramphenicol.

2. Attempt any <u>TEN</u> of the following:

- a) Explain principle and procedure involved in limit test for Iron.
- b) Describe Mohr's method for precipitation titrations with reaction.
- c) Draw the structure from given IUPAC name
 - i) 5, 5-diphenylimidazolidine-2, 4-dione.
 - ii) 3 (2-chloro-10H-phenothiazin-10-yl)-N, N-dimethylpropan-1-amine
 - iii) 7-chloro-1, 3-dihydro-1-methyl-5-phenyl-1, 4-benzodiazepine-2-one.
- d) What are cholinergic antagonists? Give their examples. Name the drug used in Parkinsonism.
- e) Draw the structure of propranolol. Give its uses and popular brand name.
- f) Classify diuretics with example. Write structure of frusemide.
- g) What is Diabetes mellitus? Give structure and chemical name of metform in.
- h) State what are NSAID's ? Give uses and popular brand names of Aspirin.
- i) Define and classify antitubercular drugs. Draw the structure of Isoniazid (INH).
- j) What are β lactum antibiotics? Give the structure and uses of Amoxicillin.
- k) Classify antineoplastic drugs with example. Discuss uses of cisplatin.

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3. Attempt ALL of the following:

- a) Guitzet's test apparatus is used to carry out limit test of
- b) Name the indicator used in the assay of sodium chlorid.
- c) State the uses of Hydrogen peroxide.
- d) Use of ferrous sulphate is _____.
- e) Which one of the following five membered unsaturated heterocycle containing oxygen?
 - i) pyridine
 - ii) Oxazole
 - iii) Pyrrole
 - iv) Furan
- f) The suffix "ole" is used for
 - i) Five membered unsaturated ring
 - ii) Six membered unsaturated ring
 - iii) Five membered saturated ring
 - iv) Six membered saturated ring.
- g) Which of the following is not a five membered ring
 - i) pyridine
 - ii) Furan
 - iii) Imidazole
 - iv) Oxazole
- h) The prefix Thia/Thio is used for a heteroatom ____
- i) Write brand name of phenytoin.
- j) In what dosage form diazepam is given?
- k) Acetyl-choline is an
 - i) Cholinergic blocker
 - ii) Adrenergic blocker
 - iii) Adrenergic agent
 - iv) Cholinergic agent
- 1) _____ is an imidazoline derivative and a direct active sympathomimetic amine with vasoconstrictive activity.
- m) Name the pharmacological category of quinidine sulphate.
- n) Captopril is used in treatment of _____.
- o) Which of the following diuretic is a derivative of anthranillic acid
 - i) Frusemide
 - ii) Urea
 - iii) spironolactone
 - iv) Ethacrynic acid
- p) Mefanamic acid is used in -
- q) Crocin is a popular brand name of -
- r) Brand name of Remdesivir is -
- s) In what dosage form azithromycin is given?
- t) Name antimetabolites used as antineoplastic agents.