

# 20112

**21222**

**3 Hours / 80 Marks**

Seat No.

--	--	--	--	--	--	--	--

15 minutes extra for each hour

---

- 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**

- 1. Attempt any SIX of the following: **30****
- a) What is parasympatholytic agent ? Classify it with suitable examples. Give the chemical structure, chemical name, and uses of Dicyclomine Hydrochloride.
- b) Define Gravimetric analysis. State its principle and describe various steps involved in it.
- c) Draw the chemical structure of antipsychotics having piperidine nucleus. Give its chemical name, uses, formulations and popular brand name.
- d) Draw the structure from the IUPAC name and write name of drug
- (i) 2-(2,4-difluorophenyl)-1, 3-di (1H-1,2,4-triazol-1-yl) propan-2-01
- (ii) 2-amino-1, 9-dihydro-9-((2-hydroxyethoxy) methyl) -3H-purin-6-one

P.T.O.

- e) Define and classify Antimicrobial agents and explain their mechanism of action. Give pharmaceutical formulations, marketed preparations, storage conditions and uses of Boric Acid.
- f) Classify antibiotics according to chemical structure with examples. Draw and explain the structure of basic nucleus of Penicillins. Also give structure of Amoxicillin with its chemical name.
- g) Explain reaction and principle involved in limit test of arsenic and draw a neat, labelled sketch of Gutzeit apparatus.

2. Attempt any TEN of the following:

30

- a) Give any two brand names of –
  - (i) Diazepam
  - (ii) Amitriptyline
  - (iii) Carbamazepine
- b) Draw the chemical structure of chloramphenicol. Give its uses and brand name.
- c) State what is meant by 'Volumetric analysis'. Enlist its types and explain one precipitation type of titration.
- d) What are diuretics ? Draw the chemical structure of diuretics having furan nucleus. Give its chemical name and uses.
- e) Define 'Neoplasm' and classify antineoplastic agents with example.
- f) Enlist different "sources of impurities" and describe any two sources.
- g) What is co-trimoxazole ? Explain its mechanism of action and give two brand names of Co-trimoxazole.
- h) Define and classify anti-hypertensive agents. Draw the chemical structure of captopril.
- i) Give structure, properties, uses and brand names of Ibuprofen.

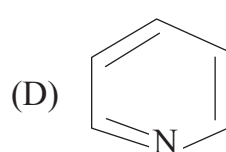
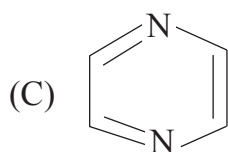
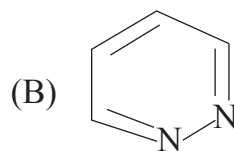
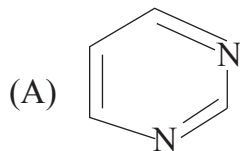
- j) Classify Adrenergic drugs. Draw the structure and give chemical name of Naphazoline.
- k) Explain diabetes mellitus. Classify hypoglycemic agents with examples.

**3. Attempt the following:****20**

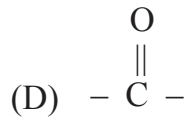
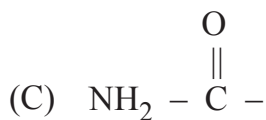
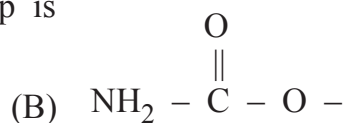
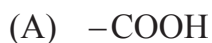
- a) Select the drug from following which acts as alkylating agents.  
(A) 5-Fluorouracil (B) Doxorubicin  
(C) Cyclophosphamide (D) Vincristine
- b) In what dosage form Azithromycin is given ?
- c) The basic heterocyclic ring present in phenytoin is \_\_\_\_\_.  
(A) Pyrazole (B) Imidazole  
(C) Imidazolidine (D) Pyrazolidine
- d) To prepare a solution of accurately known volume, use a  
(A) Beaker (B) Conical Flask  
(C) Volumetric Flask (D) Measuring Cylinder
- e) Cathartics are the drugs used to  
(A) Relieve acidity  
(B) Relieve constipation  
(C) Reduce gastrointestinal irritations  
(D) All of the above
- f) In limit test for sulphate, to prevent the super saturation of  $BaSO_4$ , a small amount of \_\_\_\_\_ has been added in the reagent.  
(A) Alcohol (B) Dil. HCl  
(C) Potassium sulphate (D) Barium chloride
- g) To prevent dental caries, toothpaste should contain  
(A) Strontium chloride (B) Zinc chloride  
(C) Sodium metaphosphate (D) Sodium fluoride

- h) The antifungal drug, ketoconazole contains — heterocyclic ring.
- (A) Imidazole (B) Pyridine  
(C) Acridine (D) Pyrimidines
- i) Lasix is a popular brand of
- (A) Hydrochlorothiazide (B) Furosemide  
(C) Amiloride (D) Acetazolamide
- j) Name the antidepressant agent, which is a dibenzazepine derivatives
- (A) Citalopram (B) Fluoxetine  
(C) Imipramine (D) Paroxetine
- k) Match the followings.
- |              |                               |
|--------------|-------------------------------|
| 1. Class I   | a) Calcium channel blockers   |
| 2. Class II  | b) Beta - blockers            |
| 3. Class III | c) Sodium channel blockers    |
| 4. Class IV  | d) Potassium channel blockers |
- Options.
- a. 1-a, 2-b, 3-c, 4-d  
b. 1-d, 2-b, 3-a, 4-c  
c. 1-b, 2-c, 3-a, 4-d  
d. 1-c, 2-b, 3-d, 4-a
- l) The name of following group is
- $$\begin{array}{c} \text{NH} \\ || \\ \text{NH}_2 - \text{C} - \text{NH} - \end{array}$$
- (A) Anilino (B) Amidino  
(C) Guanidino (D) Amino
- m) In what dosage form Isosorbide Dinitrate is given ?
- n) Which of the following NSAIDS is phenylacetic acid derivatives ?
- (A) Diflusal (B) Aspirin  
(C) Mefenamic acid (D) Diclofenac

- o) Give structure and method of numbering for Acridine.  
 p) Write name and uses of drug containing imidazoline heterocycle.  
 q) The structure of pyridine ring is



- r) 2-acetoxybenzoic acid is IUPAC name of ?  
 (A) Paracetamol (B) Aspirin  
 (C) Mefenamic acid (D) Ibuprofen
- s) The structure of carbamoyl group is



- t) Which of the following drug is direct acting cholinomimetic agent ?  
 (A) Parathion (B) Physostigmine  
 (C) Carbachol (D) Pyridostigmine

---