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) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.
(5) In case student has attempted sub-question 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) Explain reaction and principle involved in limit Test of Arsenic and draw neat and labelled sketch of Gutzeit's apparatus.

b) Give storage condition and uses of (any two)
i) Oxygen ii) Nitrous oxide
iii) Hydrogen Peroxide

c) Define "Volumetric analysis. Mention the types of volumetric analysis, Explain Acid-base titration and give types of acid base titration.

d) What are adrenergic drugs? Classify with examples. Draw the structure of Propranolol.

e) Define and classify anticonvulsant, give structure and uses of Phenytoin.

f) Define and classify Antibiotics giving suitable example of compounds under each class, give structure of Amoxicillin.

g) Classify sulphonamides based on chemical nature and its uses. What is cotrimoxazole ?

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

a) Define limit test and give reaction and principle involved in limit test of Chloride.

b) Define Cholinergic, give structure and chemical name of acetyl choline.

c) What is the Principle involved in Gravimetric analysis ? Enlist the steps involved in gravimetric analysis.

d) Define Sedative and Hypnotics, give structure of Diazepam.

e) Give structure, chemical name and brand name of Frusemide.

f) Define and classify antihypertensive agents.

g) Define and classify antineoplastic agents.

h) Define and classify Hypoglycaemic agent

i) Give structure and brand name of (any two)
i) Aspirin ii) Paracetamol
iii) Chloroquine

j) Define and classify anti-Tubercular agent give structure of INH.

k) Give uses and brand name of (any two)
i) Erythromycin ii) Penicillin G
iii) Chlorpromazine

Marks

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

a) Limit test are performed in:
   i) Separating flask ii) Arsenic test apparatus
   iii) Nesseler's cylinder iv) Measuring cylinder

b) Which of the following are anti-microbial agents?
   i) Silver Nitrate ii) Hydrogen peroxide
   iii) Potassium permanganate iv) All of the above

c) To prepare a solution of accurately know volume, use a _____.
   i) Beaker ii) Conical flask
   iii) Volumetric Flask iv) Measuring Cylinder

d) Name anyone drug containing indole heterocyclic ring.

e) _____ are used in iron defeciency anemia.

f) _____ is a plant origin anticancer agent.

g) Identify the following hetero cycle
   i) Imidazole ii) Pyrazole
   iii) Oxazolidine iv) Pyrrol

h) _____ causes both reversible loss of sensation and consciousness.

i) Draw the structure of following groups.
   i) Amino ii) Phenyl

j) Define anti-arrhythmic agent.

k) Write two examples of tricyclic antidepressants.

l) Give Brand name of Ibuprofen.

m) Give uses of Salbutamol.

n) Write dosage form (Pharmaceutical Preparation) of Isosorbide Dinitrate.

o) Draw the structure of Naphazoline.

p) Define Diuretics with examples.

q) Write IUPAC name of Dapsone.

r) Give uses of Diclofenac.

s) The order of preference for hetero atoms are as follow
   i) Oxygen, Nitrogen, Sulphur ii) Sulphur, Nitrogen, Oxygen
   iii) Oxygen, Sulphur, Nitrogen iv) Nitrogen, Oxygen, Sulphur

t) Give dosage form (Pharmaceutical Preparation) Azithromycin.

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