20112

12526

03 Hours / 80 Marks

Seat No. | | | | | | | | |

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) Classify antibiotics based on their chemical structure. Draw the chemical structure of amoxicillin and state its brand names. (Any 2 brand names)

b) What are antimalarial drugs? Classify them with an example. Provide the chemical structure and uses of chloroquine.

c) Define and give two examples and their use for each of the following:
   i) Cathartics
   ii) Antimicrobial agents

d) Draw the chemical structure of phenytoin. Write its IUPAC name, therapeutic uses, formulations, and brand names.

e) Define and classify sympathomimetic agents with examples. Draw the chemical structure of naphazoline and give its uses.

f) What is volumetric analysis? List the apparatus used in this technique. Describe any one type of volumetric analysis.

g) Explain the principle and reaction involved in the limit test for arsenic. Draw a diagram of the Gutzeit apparatus.

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

a) State the uses of chloramphenicol, azithromycin, and doxycycline.

b) Enlist any four sources of impurities and describe one of them in detail.

c) List two drugs from each of the following classes –
   i) Antipsychotics
   ii) Anticonvulsants
   iii) Anti-depressants

d) Explain the principle of gravimetric analysis and describe the general method used in this technique.

e) Draw the structure of sulfacetamide. Write its uses and popular brand names (any 2 brand names)

f) Classify antineoplastic agents. Draw the structure of fluorouracil.

g) Draw the chemical structure of aspirin, ibuprofen & paracetamol.

h) Classify hypoglycemic agents with examples.

i) Draw the structure of Furosemide and write its chemical name. Give its uses.

j) Define and classify antihypertensive agents.

k) What are adrenergic antagonists? Classify them.

P.T.O.

Marks

3. Attempt ALL of the following : 20

a) Lasix is a popular brand name for ———.

b) The turbidity observed in the limit test for sulfate is due to the formation of:
   i) Barium sulfate
   ii) Silver chloride
   iii) Lead sulfate
   iv) Calcium carbonate

c) Name any one barbiturate used as anaesthetic drug.

d) Draw structure of cyclophosphamide.

e) An analgesic containing para-aminophenol is ———.

f) Furan is:
   i) A sulfur-containing five-membered fully unsaturated heterocyclic ring.
   ii) A sulfur-containing five-membered saturated heterocyclic ring.
   iii) An oxygen-containing five-membered fully unsaturated heterocyclic ring.
   iv) An oxygen-containing five-membered saturated heterocyclic ring.

g) Write the uses of Atropine sulfate.

h) What is the prefix commonly used for oxygen in the nomenclature of heterocyclic compounds?

i) True or False: Sodium bicarbonate is an inorganic topical agent is primarily used for its antiseptic properties?

j) The ring system present in Imipramine is:
   i) Dibenzoazepine
   ii) Benzodiazepine
   iii) Phenothiazine
   iv) Piperidine

k) Name any one drug used in the management of angina.

l) Define Haematinics.

m) The ring system present in the chemical structure of captopril is
   i) Pyrrolidine
   ii) Pyrrole
   iii) Pyrazole
   iv) Imidazole

n) Name any two tetracyclines.

o) Write any two uses of Pilocarpine.

p) Write any one use of Morphine and Diclofenac.

q) True or False: Imidazolidine is an unsaturated heterocyclic compound.

r) Sulfamethoxazole is often combined with another antibiotic to enhance its antibacterial effects. What is the common partner drug in this combination?

s) Draw structure of Quinoline heterocycle.

t) Define Limit Tests.

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