

201172

PH-I/2(N)

2024

Pharmaceutical Chemistry

Time Allowed: 3 Hours

Full Marks: 80

Answer all Questions.

1. **A. Fill in the blanks with appropriate words:** 1×5
- Full name of SSRI is _____.
 - Insulin hormone is made up of _____ number of amino acids.
 - Remdesivir is _____ agent.
 - The unsubstituted bicyclic ring system of penicillin is called as _____.
 - HPLC stands for _____.
- B. Choose the correct alternative:** 1×15
- Which of the following is not an Anti-fungal drug? – (i) Ketoconazole (ii) Rifampicin (iii) Amphotericin B (iv) Griseofulvin
 - The difference between experimental mean value and true value is known as – (i) Relative Error (ii) Absolute error (iii) Systemic error (iv) Random error
 - Amoxicillin is an antibiotic of the group— (i) Beta lactam (ii) Polyene (iii) Macrolide (iv) None of these
 - PAS is therapeutically used in – (i) Malaria (ii) Gonorrhoea (iii) Tuberculosis (iv) None of these
 - Ramipril is a – (i) Diuretics (ii) Anti-hypertensive (iii) Anti-viral (iv) Anti-neoplastic agent
 - Cool is any temperature between – (i) -2 to 0°C (ii) 0 to 2°C (iii) 2 to 8°C (iv) 8 to 25°C
 - Metformin is a – (i) Biguanide (ii) Sulphonyl urea (iii) Polypeptide (iv) None of these
 - Heteroatoms present in Thiazole are – (i) S and N (ii) S and O (iii) N and O (iv) N and N
 - $\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$ is also known as – (i) Blue vitriol (ii) Yellow vitriol (iii) Green vitriol (iv) White vitriol
 - Aluminium hydroxide gel is used as – (i) Antacid (ii) Haematinics (iii) Cardio tonic (iv) Diuretics
 - Acetyl salicylic acid is used as – (i) Anaesthetic (ii) NSAID (iii) Anticonvulsant (iv) Sedative
 - Arsenic limit test is done in – (i) Nessler cylinder (ii) Gutzeit apparatus (iii) Test tube (iv) Round bottom flask
 - Benzalkonium chloride is – (i) Anionic surfactant (ii) Cationic surfactant (iii) Neutral substance (iv) Radioactive substance
 - Which is orange red crystalline powder? – (i) Primaquine (ii) INH (iii) Rifampicin (iv) Ethambutol
 - Naloxone is a – (i) Analgesic (ii) Antipyretic (iii) Morphine antagonist (iv) None of these
2. **Answer any 10 (Ten) questions from the following:** 3×10
- Write on Storage condition, physical properties and formulation of Nor-epinephrine/Atropine sulphate?
 - Define accuracy and precision.
 - Write a note on Nitrous Oxide as a medicinal gas.
 - Classify Anti-neoplastic agents with example.
 - Write down the structure, uses and nomenclature of Captopril.
 - Mention the role of lead acetate cotton plug in the limit test for arsenic.
 - Write a short note on limit test for Iron.
 - Write down the structure, nomenclature of Diazepam and ofloxacin

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- i) Write the chemical classification of Sedative and Hypnotic drugs with examples.
 - j) Write the properties and uses of Chlorhexidine gluconate.
 - k) Write a note on precipitation titration.

3. Answer any 6 (Six) questions from the following:

5×6

- a) Define and classify Antacids with examples. Why do we prefer combined antacids?
 - b) Define the term impurity. Explain various sources of impurities present in pharmaceuticals.
 - c) Write notes on Oral hypoglycaemic agents. Mention structure, chemical name of Metformin.
 - d) Classify Anti-tubercular drugs. Write down the structure, chemical name and formulation of INH.
 - e) Define and classify NSAIDs with examples. Write down the structure and chemical name of Paracetamol.
 - f) Write the chemical formula, synonym, properties, uses and storage conditions of Ferrous Sulphate.
 - g) Write the structure of – (i) Aspirin (ii) Adrenaline (iii) Propranolol (iv) Cyclophosphamide (v) Cisplatin.
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