

PHARMACEUTICAL CHEMISTRY

Time Allowed: 3 Hours

Full Marks: 80

Answer all questions as directed.

1. Choose the correct alternative (any ten):

10x1

- i. Arsenic limit test is done in:
 - a. Nessler cylinder.
 - b. Gutzeit apparatus.
 - c. Test tube
 - d. Conical flask.
- ii. Magnesium hydroxide gel is used as:
 - a. Antacid.
 - b. Haematinics
 - c. Cardiotonic.
 - d. Diuretics.
- iii. Starch with iodine gives ____ colour:
 - a. Red.
 - b. Green.
 - c. Blue.
 - d. Black.
- iv. Naloxone is :
 - a. Analgesic
 - b. Antipyretic
 - c. Morphine antagonist
 - d. Antacid.
- v. Cold is any temperature between:
 - a. -2 to 0°C.
 - b. 2 to 8°C
 - c. 4 to 10°C.
 - d. 8 to 15°C.
- vi. SSRI stands for:
 - a. Selective serotonin reuptake inhibitor.
 - b. Selective serum reuptake inhibitor.
 - c. Selective serotonin reabsorption inhibitor
 - d. None of these.
- vii. Epilepsy is:
 - a. CNS disease,
 - b. CVS disease.
 - c. ANS disease,
 - d. Liver disease.
- viii. Calmoseptis:
 - a. Antibiotic.
 - b. CNS stimulant.
 - c. CNS depressant.
 - d. Antipyretic.
- ix. Which drug gets darken while exposure to light —
 - a. Paracetamol
 - b. Aceclofenac
 - c. Celecoxib
 - d. Mefenamic acid
- x. Azithromycin is: an antibiotic of the group:
 - a. Beta lactam
 - b. Polyene
 - c. Macrolide
 - d. None of these.
- xi. INH is therapeutically used in:
 - a. Malaria
 - b. Gonorrhea
 - c. Tuberculosis
 - d. UTL

2. Fill in the blank with appropriate word/words (any ten):

10x1

- a) The colour of the $\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$ is _____.
- b) Arsine gas reacts with mercuric chloride paper to produce _____ stain.
- c) In heterocyclic compounds, nitrogen is prefixed as _____.
- d) Quinolone drugs are generally suffixed with _____.
- e) Co-trimoxazole is made up of two different medicines named _____ and _____.
- f) Cancer which originates from bone or cartilage is known as _____.
- g) Example of an adrenergic agonist which contains imidazole ring is _____.
- h) Propranolol is a _____ receptor blocker.
- i) Full form of ORS is _____.
- j) On hydrolysis, aspirin produces _____ and _____.
- k) _____ is a synthetic morphine analogue.

10x3

3 Answer the following short answer type questions (any ten):

- ☒ a) Write the sources of impurities
- ☒ b) Write a short note on different types of dentifrices
- ☒ c) Write note on anti-tubercular agents. Note on Rifampicin
- ☒ d) Define antifungal agents and osmotic diuretic with examples.
- ☒ e) Write a note on different types of insulin.
- ☒ f) What are the various steps involved in precipitation gravimetry?
- ☒ g) What are antacids? Classify antacids with suitable examples.
- ☒ h) Write down the heterocyclic ring (any three) of Furan, Thiazole, Indole, Pyrrole, Imidazole.
- ☒ i) Note on Remdesivir and Chloroquine phosphate.
- ☒ j) Define Antianginal drugs with examples.
- ☒ k) Classify sulphonamides with examples.

4. Answer the following long answer type questions (any six):

6x5

- ☒ a) Write a note on "Oxygen-as medical gas".
- ☒ b) Describe the process for Limit test for Chloride
- ☒ c) Describe 'Accuracy' and 'Precision' with example.
- ☒ d) Define and classify anti-arrhythmic agents with example. Name one anti-arrhythmic agent which is also used as Local anaesthetics.
- ☒ e) Define Antibiotic. Classify them. Give a brief account of Amoxicillin.
- ☒ f) Write about Antineoplastic agents. Classify with examples.
- ☒ g) Write briefly on Topical agents and Loop diuretics.
- ☒ h) Write down the chemical structures and chemical name of ASPIRIN and FRUSEMIDE.