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Pharmaceutical Technology
Brainware University
Barasat, Kolkata-700125

BRAINWARE UNIVERSITY

Term End Examination 2025-2026

Programme – D.Pharm-2024/D.Pharm-2025

Course Name – Pharmaceutical Chemistry - Theory

Course Code - ER20-12T

(Year I)

Full Marks : 80

Time : 3:0 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 20=20

1. Choose the correct alternative from the following :

- (i) Identify the test on which Limit test for Arsenic is based.
 - a) Gutzeit test
 - b) Fehlings test
 - c) Benedicts test
 - d) None of these
- (ii) Identify the reason for the formation of purple colour in the limit test of iron.
 - a) Ferrous sulphate
 - b) Ferrous mercaptoacetate
 - c) Citric acid
 - d) None of these
- (iii) Identify correct answer: In limit test for iron, Ferrous thioglycolate has stable pink to reddish purple colour in which medium?
 - a) Acidic
 - b) Alkaline
 - c) Neutral
 - d) None of these
- (iv) Identify correct answer: The chief Source of lead impurity are.
 - a) Sulphuric acid
 - b) Lead lined apparatus
 - c) both (a) & (b)
 - d) None of these
- (v) Identify correct answer: Limit test of iron is based upon reaction of Fe with which compound in a solution buffered with ammonium citrate?
 - a) Thioglycolic acid
 - b) Acetic acid
 - c) Sodium hydroxide
 - d) Thioglyconate
- (vi) Identify correct answer: Volumetric analysis is applied to determine the concentration of the.
 - a) Solvent
 - b) Titrant
 - c) Analyte
 - d) None of these
- (vii) Identify correct answer: A substance or chemical that changes its colour in acidic and basic medium during titration called _____.
 - a) Indicator
 - b) Titrant
 - c) Equivalency
 - d) Buffer solution
- (viii) Identify correct answer: EDTA is used as titrant in?

- a) Complexometric titration
c) Non Aqueous titration
- b) Acid base titration
d) Gravimetric analysis
- (ix) Select the five membered sulphur contain heteroaromatic rings.
a) Furan
c) Pyrrole
b) Thiophene
d) All of the above
- (x) Identify the correct features for general anesthesia are.
a) Loss of all sensation, especially pain.
c) Immobility and muscle relaxation.
b) Sleep(unconsciousness) and amnesia.
d) All of these.
- (xi) Identify the correct option. Halothane is the _____ form of general anesthetic.
a) Inhalational
c) Both of them
b) Intravenous
d) None of these
- (xii) Select the correct option: Neuroleptics also known as.
a) Antipsychotics
c) Cholinergics
b) Anticonvulsant
d) None of these
- (xiii) Identify the correct option: Brand name FusePac, Fanatrex, Gabarone contains.
a) Carbamazepine
c) Amitriptyline
b) Gabapentin
d) Fluoxetine
- (xiv) Identify the correct option: For the treatment of mania and depression _____ are used.
a) Anti-depressant
c) Antiepileptics
b) Antipsychotics
d) None of these
- (xv) Identify the correct option: Isoflurane belongs to which class of general anesthetic?
a) Volatile liquids
c) Slow acting
b) Gas
d) Inducing agents
- (xvi) Select the correct option: Thiopental Sodium is freely soluble in _____.
a) alcohol
c) chloroform
b) ether
d) water
- (xvii) Identify the full form of GABA.
a) gamma-aminotartaric acid
c) gamma-alkylbenzoic acid
b) gamma-aminobenzoic acid
d) gamma-aminobutyric acid
- (xviii) Identify the correct option: Amobarbital belongs to which class of barbiturates?
a) Long acting
c) Medium acting
b) Short acting
d) Ultra-short acting
- (xix) Identify the correct option: Butobarbital belongs to which class of barbiturates?
a) Long acting
c) Medium acting
b) Short acting
d) Ultra-short acting
- (xx) Identify the correct option: Pentobarbital belongs to which class of barbiturates?
a) Long acting
c) Medium acting
b) Short acting
d) Ultra-short acting

Group-B

(Short Answer Type Questions)

3 x 10=30

2. Discuss the principle for the limit test of Iron and explain the role of thioglycolic acid. (3)
3. Explain accuracy and precision (3)
4. Describe antacids and classify them with suitable examples in each class. (3)
5. Explain in brief about magaldrate and aluminium hydroxide gel (3)
6. Explain the properties, storage and uses of Silver Nitrate (3)

7. Classify anticonvulsant agents and write down the chemical structure, storage condition and uses of any one drug. (3)

8. Describe protectives and adsorbents with their uses. (3)

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9. Define the following: Hypochlorhydria, Achlorhydria, Hyperchlorhydria, Diarrhoea, Constipation, Acidifiers (3)

10. Describe about market preparations, formulation and uses of Chlorhexidine gluconate. (3)

11. Briefly explain about hypertension and classify antihypertensive agents with suitable example. (3)

OR

Explain anti anginal agents and classify them with suitable examples (3)

Group-C

(Long Answer Type Questions)

5 x 6=30

12. Describe Epinephrine

13. Describe about the stability, storage conditions and uses of Salbutamol (Albuterol). (5)

14. Write briefly about Fluvoxamine

15. Describe about stability, storage condition, uses and market formulations of Tetrahydrozoline. (5)

16. Classify NSAIDs and briefly explain the stability, storage conditions and uses of Diclofenac. (5)

17. Explain Amitriptyline Hydrochloride with structure (5)

OR

Explain Imipramine Hydrochloride with its chemical structure. (5)
