

**PARUL UNIVERSITY**  
**FACULTY OF PHARMACY**  
**D. Pharm. May -2022 Examination**

Semester: 1

Subject Code: ER20-12T

Subject Name: Pharmaceutical Chemistry

Date: 17/05/2022

Time: 10:00am to 1:00pm

Total Marks: 80

**Instructions:**

- Figures to the right indicate maximum marks.
- Make suitable assumptions wherever necessary.

**Q.1 Multiple Choice Questions (MCQs) (1 Mark Each)****(20)**

- Volumetric analysis is applied to determine the concentration of the \_\_\_\_\_.  
 A. Solvent  
 B. Titrant  
 C. Analyte  
 D. None of these
- Drug that blocks synthesis of Acetylcholine.  
 A. Vesamicol  
 B. Hemicholinium  
 C. Tropicamide  
 D. All of above
- Baking soda is a common name of \_\_\_\_\_.  
 A. Sodium carbonate  
 B. Sodium bicarbonate  
 C. Sodium nitrate  
 D. Sodium citrate
- EDTA used as titrant in \_\_\_\_\_.  
 A. Complexometric titration  
 B. Acid-Base titration  
 C. Non-aqueous titration  
 D. Gravimetric analysis
- Precipitation, digestion, washing, filtration, drying and ignition of precipitates steps are involved in \_\_\_\_\_.  
 A. Precipitation Titration  
 B. Gravimetric analysis  
 C. Redox titration  
 D. Acid-Base titration
- Which substance among following are safer for treatment of insomnia?  
 A. Barbiturates  
 B. TCA  
 C. Benzodiazepines  
 D. Both A & B
- Which one of the following is a saline cathartic?  
 A. Magnesium sulphate  
 B. Magnesium Trisilicate  
 C. Magnesium carbonate  
 D. Bismuth subcarbonate
- The recent edition of Indian pharmacopoeia is \_\_\_\_\_.  
 A. 4<sup>th</sup> edition  
 B. 6<sup>th</sup> edition  
 C. 7<sup>th</sup> edition  
 D. 8<sup>th</sup> edition
- 5,5-diphenylimidazolidine-2,4-dione is IUPAC name of \_\_\_\_\_.  
 A. Barbitone  
 B. Phenytoin  
 C. Tropane  
 D. Procaine
- Titrations involving silver nitrate is known as  
 A. Precipitation Titration  
 B. Acid Base Titration  
 C. Argentometry Titration  
 D. Complexometric Titration
- Captopril is used for the treatment of \_\_\_\_\_.  
 A. Hypertension  
 B. Congestive Heart Failure  
 C. Cardiac Arrhythmia  
 D. Both A & B
- Chemical formula of sodium phosphate is \_\_\_\_\_.  
 A.  $\text{NaH}_2\text{PO}_4$   
 B.  $\text{Na}_2\text{PO}_4$   
 C.  $\text{Na}_2\text{HPO}_4$   
 D.  $\text{Na}_2\text{HPO}_3$
- Full form of IUPAC is \_\_\_\_\_.  
 A. International union of pure and applied chemistry  
 B. Indian union of pure and applied chemistry  
 C. International union of pure and application chemistry  
 D. All of above

14. Which of the following is not a neurotransmitter?  
 A. Acetylcholine  
 B. Cyclic AMP  
 C. Noradrenaline  
 D. Dopamine
15. Celecoxib is the inhibitor of \_\_\_\_\_.  
 A. COX-1  
 B. COX-2  
 C. COX-1 & COX-2  
 D. None of these
16. Which of the following is phenyl acetic acid derivative?  
 A. Diclofenac  
 B. Ibuprofen  
 C. Aspirin  
 D. All of above
17. Structurally Penicillins are \_\_\_\_\_ antibiotics.  
 A. Fluroquinolones  
 B.  $\beta$ -lactam  
 C. Oxazolidinone  
 D. Monobactam
18. In general, when an acid and a base are mixed \_\_\_\_\_.  
 A. A new acid and salt are formed  
 B. A new base and salt are formed  
 C. No reaction  
 D. Salt and water are formed
19. In limit test of sulphate alcohol not allow \_\_\_\_\_.  
 A. Saturation  
 B. Super saturation  
 C. Less saturation  
 D. Precipitation
20. Chlorambucil and Actinomycin are drugs under category of \_\_\_\_\_.  
 A. Antineoplastic  
 B. Antitubercular  
 C. Antifungal  
 D. Antibiotics

**Q.2 Short Answers (Answer 10 out of 11) (3 Mark Each)**

**(30)**

- Write down theory of limit test for Chloride.
- Write down chemical formula and uses for following compounds.  
 (A) Sodium bicarbonate (B) Magnesium sulphate (C) Ferrous sulphate
- Give the principle of Precipitation titration.
- Write properties and uses of Busulphan and Cisplatin.
- Write short note on Codeine
- Write short note on Insulin
- Write classification of Anti-TB agents
- Write classification of Oral hypoglycemic agents.
- Explain the following terms:  
 (A)Tachycardia (B) Bradycardia (C)Atrial fibrillation  
 (D) Atrial flutter (E) Ventricular Flutter (G) Extrasystole
- Write a Short note on Diclofenac.
- Write a short note on laxative and cathartics.

**Q.3 Long Answers (Answer 6 out of 7) (5 Mark Each)**

**(30)**

- What is cholinergic system? Classify Cholinergic drugs.
- How fluoride is helpful in the treatment of Dental caries. Discuss about the compound zinc eugenol cement or sodium fluoride.
- What are Antacids? Describe combination of antacid preparations with examples and explain Aluminium hydroxide.
- Write definition of Complexometric titration. Describe about classification of complexometric titration, masking agents and demasking agents.
- Write the detailed Classification of Antibiotics.
- Write the principle involved in Gravimetric analysis.
- Write a detail note about Oxygen, Nitrogen and Carbon dioxide.