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**Regulation: R18****Code No: 18BP017/9**

I B.Pharmacy II Semester Regular/Supplementary Examinations – June, 2024

## PHARMACEUTICAL ORGANIC CHEMISTRY-1

**Time: 3 hours****(B.PHARM)****Max. Marks:75M**

### SECTION – A

**Answer All questions****20X1M=20M**

- The reaction of HBr with Propene in the presence of Peroxide gives  
 A) n – Propyl bromide    B) Isopropyl bromide    C) Allyl bromide    D) 3-Bromo Propene
- The Compounds which has same molecular formula but different structures are known as-  
 A) Isomers    B) Images    C) Reagents    D) Product
- Alkenes are also known as  
 A) Olefins    B) Paraffin    C) Acetylene    D) Saturated compounds
- Chlorination of Methane is  
 A) An addition reaction    B) Free radical reaction  
 C) Polymerization    D) Elimination reaction
- Lucas test is used to differentiate  
 A) Alcohols    B) Ethers    C) Amines    D) Aldehydes
- Conversion of Carboxylic acid to an Ester is known as  
 A) Reduction    B) Oxidation    C) Esterification    D) Polymerization
- An example for Primary aromatic amine is  
 A) Adrenaline    B) Aniline    C) Anisole    D) Anthrasene
- Oil of Winter green is  
 A) Aspirin    B) Methyl salicylate    C) Calcium Salicylate    D) Methyl oxalate
- The addition of hydrogen chloride to the Un symmetrical alkene is explained by  
 A) Saytezef's rule    B) Markovnikoff's rule  
 C) Anti Markovnikoff's rule    D) None of them.
- Conversion of an Aldehyde in to Alcohol involves  
 A) Reduction    B) Oxidation    C) Esterification    D) Polymerization
- A derivative of 1,3,5 –trioxane is  
 A) Acedaldehyde    B) Paraldehyde  
 C) Benzaldehyde    D) Cinnamaldehyde
- Phenol is also known as  
 A) Carboxylic acid    B) Carbonic acid    C) Carbolic acid    D) None of them
- Which of the following sequence regarding relative stability of Free radical is correct?  
 A)  $3^0 > 2^0 > 1^0$     B)  $2^0 > 3^0 > 1^0$     C)  $1^0 > 2^0 > 3^0$     D)  $1^0 > 3^0 > 2^0$
- Walden inversion takes place in  
 A) SN1    B) SN2    C) E2    d) none of them
- The identification test for Carboxylic acid  
 A) Litmus test    B) Ester test    C) Sodium bi carbonate test    D) All of them.

16. Chloral hydrate is used as  
A) Hypnotic      B) CNS stimulant      C) Anti pyretic      D) All of them
17. What is the effect of an electron withdrawing effect of 'Cl' group on the acidity of the Carboxylic acid  
A) Increases      B) Decreases      C) No effect      D) May increase or decrease.
18. Which of the following is used as Preservative?  
A) Chlorobutanol      B) Chloroform      C) Iodoform      D) All of them
19. Esterification is the chemical reaction of ----- with an Alcohol  
A) Amide      B) Carboxylic acid      C) Amine      D) None of them.
20. Which of the following agent is used as Urinary anti infective  
A) Hexamine      B) Chloral      C) Benzaldehyde      D) None of them.

**SECTION – B****Answer any 2 out of 3 questions****2X10M=20M**

21. Explain about a) Mechanism of Aldol condensation  
b) Mechanism of Perkin Condensation
22. Explain Markovnikoff's and Anti- Markovnikoff's rule with suitable examples?
23. Write the Chemical Structure and Uses of  
A) Hexamine      B) Chloro butanol      C) Acetyl Salicylic acid  
D) Benzyl benzoate      E) Amphetamine.

**SECTION – C****Answer any Seven questions****7X5M=35M**

24. Write about Benzoin Condensation?
25. Explain the IUPAC nomenclature of Aldehyde and ketones with examples.
26. Distinguish between E1 & E2 reactions?
27. Explain the effects of substituents on the Basicity of Amines?
28. What is Ozonolysis and write its significance?
29. Write the Chemical structure and Uses of Cinnamaldehyde and Methyl Salicylate?
30. Explain the acidity of Carboxylic acid and the effect on substituents on it?
31. What is Walden SN<sub>2</sub> Inversion? Mention the factors affecting SN<sub>2</sub> reaction?
32. Discuss the Stability of Carbocations?