BPharm Semester II – End semester supplementary examination, December-2021 PCH-BP202T. PHARMACEUTICAL ORGANIC CHEMISTRY-I

Date: 01.12.2021

Duration: 20 minutes

Max. Marks: 20

		Time 2 pm-2.20 P.M.	Waa. Watks. 2	O
	Multiple choi	ice auestions 26) Marks	
	Answer all questions	write the appropriate of		rovided
1.	Which of the following halide a) Primary alkyl halide b) Tertiary alkyl halide	can give best S _N 2 reaction c) Secondary alkyl halidd d) All can give S _N 2 reaction	e	
2.	because a) they have an electrophilic ca b) They have a nucleophilic ca c) They have an electrophilic ca	rbon & a bad leaving group rbon & a good leaving grou arbon	o ip	leophile
	d) They have an electrophilic ca		oup	
3.	Vinegar contain carboxylic acid	l known as		
	a) Citric acid c) Nitric	acid	*	
4.	b) Methanoic acid d) Ethan In n-Propyl halide, carbon attac carbon atoms?		further attached to	how many
	a) 1	c) 3		-
ų.	b) 2	d) 4		and the second second
5.	What makes a lemon sour?			
	a) Tartaric acid	c) Citric acid	40 L	
	b) Oxalic acid	d) Hydrochloric acid		
6.	Least acidic compound is a) FCH ₂ CO ₂ H b) ClCH ₂ CO ₂ H	c) BrCH2CO2H d) ICH2CO2H		
7.	The irritation caused by red ants	s bite is due to		



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a) Uric acid	c) Lactic acid	
b) Acetic acid 8. An anticoagulant is	d) Formic acid	
a) Salicylic acid	c) Methyl salicylate	
b) Acetyl salicylic acid	d) Benzoic acid	
9. Carboxylic acids are more	acidic than alcohol because of	-
a) Intermolecular hydrogen	bonding c) Highly acidic hydrogen	
b) Formation of dimers	d) Resonance stabilization of the	heir conjugate hase
10. Alkaline hydrolysis of chlor		
a) Acetic acid	c) Formic acid	
b) Citric acid	d) Valeric acid	
11. Iodoform test is specific only	v for	
a) Alcohols	c) Amines	
b) Aldehydes	d) Methyl Ketones	
12. Following compound is useda) Benzaldehydeb) Cinnamaldehyde13. Potassium cyanide is used as aa) Aldol condensation	as bee repellent c) Vanillin d) Hexamine a catalyst in the following reaction c) Benzoin condensation	
b) Benzoin condensation14. The discoverer of peroxide eff	d) C1 G	
a) Markonikov	c) Khurdish	
b) Zaitsev	d) Kharasch	
Following is an important comAcetone	ponent of nail polish remover c) Toluene	
b) Benzene	d) Ethanol	

		<u> </u>
16. Following test is only answered bya) Jones oxidation	y aromatic aldehydes c) 2,4 dinitrophenyl hydrazine test	
b) Tollen's reagent test	d) Molisch's test	
17. Penta 1,3 diene is an example for		
a) Cumulated diene	c) Conjugated diene	
b) Isolated diene	d) Fatty acid	*
18. Shape and type of hybridization foa) Trigonal pyramidal and SP2	und in methylium ion (CH3+) are c) Trigonal pyramidal and SP ³	
b) Trigonal planar and SP2	d) Trigonal planar and SP ³	
19. The Diel's Alder reaction is a		
a) Syn addition	c) periplanar addition	
c) Coplanar addition	b) Anti addition	
0. IUPAC Name for the following com	ipound is	
a) Bicyclo [3,1,2] octane	c) Bicyclo [3,1,2] heptane	
b) Bicyclo [3,2,1] octane	d) Bicyclo [1,3,2] nonane	



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> Date: 01.12.2021 Duration: 3h Max. Marks: 75 Time-2.20 P.M to 5.00 P.M. INSTRUCTIONS: ANSWER ALL THE QUESTIONS

I) **MCQ** (20x1=20 marks)II) Long Essay (2x10 = 20 marks)1. A. What is Ozonolysis? Write its mechanism. How will you predict the products of Ozonolysis of an alkene? [1+3+1] B. Explain the mechanism of free radical halogenation of alkanes. [3] C. Write the mechanism of E₂ reactions with suitable illustrations. [2] 2. What are nucleophilic substitution reactions? Give its types and explain the factors affecting on it. [10] Short answers III) (7x5 = 35 marks)3. Write structures for the following IUPAC names a) 4-Ethyl-3-Methyl heptane b) 4-Isopropyl heptane c) Hept-4-en-1-ol d) 4-Hydroxy Octanoic acid e) Ethyl-4-Mercapto butanoate 1x5=5 M4. Classify structural isomerism with one example each class. 5M 5. Explain the mechanism of Perkins condensation with mechanism. 5M



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- 6. Write the structure and one use each for the following compounds.

 a. Acetone b. Benzaldehyde c. Vanillin d. Cinnamaldehyde 1.25x4 5M
- 7. Explain the effect of substituent on the acidity of carboxylic acid. 5M
- 8. Write the structure and medicinal uses for the following compoundsAcetyl salicylic acid, Chlorobutanol, Benzoic acid, Trichloromethane5M
- 9. Explain the general preparations for the following
 - a. Alkyl halides from alkene and alkyne
 - B.Carboxylic acids from nitriles

[3+2=5M]