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Enrolment No:



UPES

End Semester Examination, December 2023 Set 1

Course: Pharmaceutical Organic Chemistry II
Program: B. Pharm.
Course Code: BP301T

Semester: 3rd
Duration: 3 hours
Max. Marks: 75

Instructions: *Read questions carefully.*

SECTION A

(20Qx1M=20 Marks)

Attempt all 20 questions of this section.

S. No.		Marks	COs
Q1.	Which of the following is not a derivative of benzene?		
	a) Aniline		
	b) Toluene	1	CO1
	c) Cresol		
	d) Acetone		
Q2.	Which out of the following is the most basic compound in aqueous	1	CO2
	medium?		
	a) Triethylamine		
	b) Dimethylamine		
	c) Ammonia		
	d) Methylamine		
Q3.	List the uses of Triphenylmethane.	1	CO4
Q4.	Carbolic acid is commonly known as	1	CO2
Q5.	Sketch the boat form of Cyclohexane.	1	CO5
Q6.	NH S O	1	CO1
	State the common name of the above structure. List its uses.		
Q7.	Define bent bond.	1	CO5
Q8.	Sketch the structure of Naphthalene.	1	CO4
Q9.	Predict the product of the given reaction.	1	CO1

	+ 3Cl ₂ Sunlight ?			
	Benzene			
Q10.	List any 2 drawbacks of Baeyer-Strain theory.	1	CO5	
Q11.	Sketch the structure of 1,3,5-Trichlorocyclohexane.	1	CO5	
Q12.	Sketch the structure of DDT.		CO1	
Q13.	Sketch the structure of Diphenylmethane.		CO4	
Q14.	What is the carbon-carbon bond length in benzene?	1	CO1	
Q15.	Define "Electron donating groups."	1	CO2	
Q16.	Sketch the structures of any two polynuclear hydrocarbons.	1	CO4	
Q17.	Ferric chloride test is used for the identification of	1	CO2	
	a) Aniline			
	b) Benzoic acid			
	c) Salicylic acid			
	d) Phenol			
Q18.	The process that involves conversion of fats into soap in the presence	1	CO3	
	of aqueous NaOH is known as			
	a) Rancidification			
	b) Beta-oxidation			
	c) Hydrogenolysis			
	d) Saponification			
Q19.	Which of the following is composed of triglycerides?	1	CO3	
	a) Fats			
	b) Oils			
	c) Both Fats and Oils			
	d) None			
Q20.	Identify the given structure.		CO2	
	N=N CI-			
	a) Bangul diagonium ablasida	1		
	a) Benzyl diazonium chloride			
	b) Benzene diazonium iodide			
	c) Benzyl azonium chloride d) Benzene diazonium chloride			
	SECTION B (20 Marks)			
(2Qx10M=20 Marks)				
Attempt 2 Question out of 3				
Autilipi 2 Question out of 5				

Q1.	Provide a step-by-step mechanism for the synthesis of Bromobenzene	10	CO1
	from Benzene.	10	
Q2.	Give Haworth's synthesis of Naphthalene.	10	CO4
Q3.	Describe the chemical reactions of fats and oils.	10	CO3
	SECTION-C (35 Marks)		
	(7Qx5M=35 Marks)		
Attempt	7 Question out of 9		
Q1.	Explain Huckel's theory and illustrate it with appropriate examples.	5	CO1
Q2.	Explain the acidic nature of Phenol based on resonance stabilization of	5	CO2
	Phenoxide ion.		
Q3.	Sketch the structure, discuss the synthesis and importance of	5	CO4
	Diphenylmethane.		
Q4.	Distinguish fats from oils.	5	CO3
Q5.	Discuss in detail about the effect of substituent on their acidity.	5	CO2
Q6.	Explain Coulson and Moffitt's modification.	5	CO5
Q7.	Explain R.M. value, its procedure, and significance.	5	CO3
Q8.	Explain Inductive effect with example.	5	CO2
Q9.	Define Saponification. Discuss the importance of Iodine value.	5	CO3