

35381: Pharmaceutical Organic Chemistry - II

				BP 301	T ,		
	ges: 3 : Three l	Hours				AW - 2344 Max. Marks : 75	
	Notes: 1. 2. 3. 4. 5.		All questions are compulsory. Assume suitable data wherever necessary. Diagrams and chemical equations should be given wherever necessary. Discuss the reaction, mechanism wherever necessary. Use of pen Blue/Black ink/refill only for writing the answer book.				
						*	
1.	M	ultipl	e Choice questions.			20	
	i)	Th	e carbon atom in benzen	e ring are			
		a)	SP ³ hybridized	b)	Sp hybridized		
		c)	SP ² hybridized	d)	none of these		
	ii)	Ch a) c)	aracteristics reactions of Electrophiles Free radicals	aromatic con b) d)	npounds are initiated by Nucleophiles None of these		
	iii)	Fo	r reactions of ethylbenze	ne, the ethyl	group is considered	-	
		a)	Ortho director	b)	Ortho-para director		
		-c)	Meta director	d)	Ortho-meta director	*, *,	
	iv)	Be	nzene reacts with conc.	of			
		a)	FeCl ₃	b)	UV light	#	
		c)	conc. H ₂ SO ₄	d)	AlCl ₃		
	v)	Th	e electrophile in nitration	*			
		a)	NO ₂	b)	NO ⁺	EE2	
		c)	HNO ₂ ⁺	d)	NO ₂ ⁺		
	vi)	Tha)	e hexagonal ring structur Berzelius Friedel craft	re of benzene b) d)	was proposed by Kekule Bayer		
	vii	200			eric acid when reacts with p	henol	
		a)	nitric acid	b)	sulfuric acid		

formaldehyde

c) a diazonium salt

a) a nitrile

d)

d)

viii) Aniline reacts with nitrous acid at low temperature to give ---

hydrogen

N-nitrosamine

a nitrite salt

xix)	Which of the following is most acidic							
	a)	benzyl alcohol	b)	cyclohexanol				
	c)	phenol	d)	o-nitrophenol				
xx)	An aromatic molecule will							
85	a)	 a) Cyclic and planar 						
	b) have $(4n + 2) \pi$ electrons							
	c) have π cloud above and below the plane of molecule							
	d)	all of above						
2344			FiretDank	2				

- i) What are fats and oils? How we can check their quality?
- ii) Explain characteristics reactions of benzene
- iii) Explain the chemistry of Naphthalene.
- 3. Short answer questions (answer any seven).

35

- i) What are phenols? How are they prepared?
- ii) Write the various reactions of fats and oils.
- iii) Write a note on aryl diazonium salts.
- iv) Write the methods of preparation of benzoic acid.
- v) What are cycloalkanes? Describe Baeyer's strain theory.
- vi) Explain the effect of electron donating and withdrawing groups on electrophilic aromatic substitution reactions with example.
- vii) Write a note on aromaticity of benzene.
- viii) Write the reactions of phenols.
- ix) Explain factors affecting acidity of aromatic carboxylic acids.
