RAMAKRISHNA MISSION VIDYAMANDIRA (Residential Autonomous College under University of Calcutta) B.A./B.SC. SIXTH SEMESTER EXAMINATION, MAY-JUNE 2013 THIRD YEAR

Date		CHEMISTRY (Honours)					
Time	e:11am-1pm Pap	per : VII (Gr. B)	Full Marks : 50				
Unit - II							
1.	Choose the correct alternative (<u>any four</u>) :		[4×1]				
	a) Acrylonitrile is mainly used						
	i) in polymer industry	ii) in printing industry					
	iii) in dyeing industry	iv) in photographic industry					
	b) Phthalic anhydride is made by						
	i) oxidation of naphthalene	ii) oxidation of benzene					
	iii) dehydrogenation of ethyl benzene	iv) none of these					
	c) Aryl benzene Sulphunate (ABS) is a						
	i) detergent	ii) plastiticiser for unsaturated polyes					
	iii) a monomer	iv) Coating ingredient for photographi	ic film				
	d) Producer gas is						
	i) mixture of CO and H_2	ii) mixture of CO_2 and H_2					
	iii) mixture of CO and CO_2	iv) only H_2					
	e) Styrene is produced by						
	i) fermentation of starch	ii) reacting ethylene oxide with acetal	denyde				
	iii) catalytic dehydrogenation of ethyl benz	zene iv) none of these					
	f) Vinyl chloride is ai) monomer	ii) raw material for dyeing industry					
	iii) raw material for photographic industry	iv) none of these					
	g) material of construction of MeOH synthesi	·					
	i) Copper-lined steel ii) Lead-lined stee						
h) Raw material for ethylene production in Haldia Petrochemicals is							
	i) Ethane	ii) Gas oil					
	iii) Naphtha	iv) Bottom residue of vacuum column	l				
r	A new or only three questions .		[2,2]				
۷.	Answer <u>any three</u> questions : a) Write the use of benzene as a raw material	for petrochemical industry	[3×2]				
	a) Write the use of benzene as a raw material for petrochemical industry.b) Write the use of propylene as a raw material for petrochemical industry.						
	c) Write the operating conditions, catalyst used for the methanol synthesis from synthesis gas.						
	d) Ethylene oxide is produced by air/oxygen oxidation of ethylene while propylene oxide can not						
	produced by air/oxygen oxidation of propylene. Explain why?						
	e) Discuss the feed stock sources for petroche	mical industry.					
3.	Answer any two of the following questions :		[2×10]				
	a) i) Describe the manufacturing process of	of Isopropanol from Propylene.					
	ii) Give chemical reactions involved in t	-					
	iii) Give flow sheet of the manufacturing	process.					
	iv) State its used in the industry.		[4+2+2+2]				
	b) i) How is Vinyl Chloride prepared from Acetylene and Hydrogen Chloride. Briefly describe the						
	manufacturing process.						
	ii) Give chemical reactions						

- iii) Process flow sheet
- iv) State its uses in the industry.

[4+2+2+2]

	 c) Briefly describe the manufacturing process of Alkyl aryl sulphonate from a kerosene distillate. Outline the steps involved in the manufacturing process and reactions involved in each step. State its important uses in the industry flow sheet of the process. [4+2+2+2] 						
	 d) i) Prepare a flow sheet for a petrochemical plant feedstock sources. ii) Prepare a flow sheet for the chemicals produced from benzene. iii) Para unleng is a food stock for me duction of unlich sumthatic films? Cive resettion 						
iii) Para xylene is a feed stock for production of which synthetic fibre? Give reaction. [4+4+2]							
4. Choose the correct alternative (any four) : [4×1]							
4.	 Choose the correct alternative (<u>any four</u>): [4 a) Analgesic drugs are 						
	i) Pain relievers	ii)	antibiotics				
	iii) used in treatment of T.B		used in treatment of typhoid				
	b) Antibiotic						
	ii) inhibits/destroys the growth of microorganisms	s ii)	is used as a pain reliever				
	iii) is an anaesthetic	iv)) is an antimalarial drug				
	c) Penicillin is made by employing a/an term	entat	ion process				
	i) continuous ii) aerobic batch	iii)	anaerobic batch	iv) none of these			
	d) Which of the following is not an antibiotic						
	i) Penicillin ii) sheptomycin	iii)	tetracycline	iv) quinine			
	e) Which of the following is not food additive?	:::)	hangovi nanovida	iv) ammonium chlorida			
	i) Citric acidii) inverlagef) Eugenol is present is the oil of—	111)	belizoyi peroxide	iv) ammonium chloride			
	i) Pepper ii) Fennel	iii)	Ajowan	iv) clove			
	g) Oil of bitter almond contains mainly—	111)	r ijo wali				
	i) Phenol ii) Bisphenol	iii)	terpene	iv) Benzaldehyde			
	h) Oil of wintergreen is rich in—	,	1	, <u>,</u>			
	i) Methyl salicylate ii) Pinene	iii)	Phenol	iv) Thymol			
5.	Answer any three questions :			[3×2]			
5.	a) What is meant by the term Essential oil? Give two examples of essential oils mentioning their main						
	constituents.						
	b) What is an isolate? Give two examples and state their uses in perfumes.						
	c) Outline the synthesis of vanilin from Phenol.						
	d) How Phenyl Ethyl alcohol is prepared by Grignard Reaction?						
	e) How Aspirin is manufactured? Give chemical reactions.f) How methyl salicylate is manufactured? Give chemical reactions.						
3.				[1×10]			
5.	 Answer <u>any one</u> of the following questions : [1×10] a) i) What is an antibiotic? [1] ii) How Penicillin is manufactured by fermentation Process? Give the process in details with chemical reactions and flow sheet. State its uses. [2+6+1] 						
	 b) i) What are meant by the term Analgesic and Antipyretic? Give examples. [2] ii) How paracetamol is manufactured starting from chlorobenzene? Give the process with chemical reactions and flow sheet of the process. State its uses. 						
	c) What are sulpha drugs? Give two examples of sulpha drugs stating their uses. How sulfaguanidine is manufactured? Give chemical reactions and its uses. [3+4+2+1]						
	 d) i) Write the names of two antimalarial drugs which are used and also write their formula. [3] ii) How Paludrin is manufactured? Give chemical reactions, process flow sheet and its uses. [3+3+1] 						

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