Reg. No.



MANIPAL INSTITUTE OF TECHNOLOGY MANIPAL

A Constituent Institution of Manipal University

VII SEMESTER B.TECH (CHEMICAL ENGINEERING)

END SEMESTER EXAMINATIONS, NOVEMBER 2017

SUBJECT: ELECTIVE - VI PETROCHEMICALS [CHE 4003]

REVISED CREDIT SYSTEM

Time: 3 Hours		(28/11/2017 AN)	Max. Marks: 50	
Instructions to Candidates: Answer all the questions. Each questions carry equal marks (5 X 10 = 50). Write the reactions wherever it is necessary.				
1A.	(i) Briefly explain the major co(ii) Compare and contrast betw	ost associated with making up of a peen wet and dry natural gas.	petrochemical plant.	[03] [01]
1 B .	Draw a neat flow sheet and explain the process for the production of acetylene by partial combustion of hydrocarbon. List out any four uses acetylene.			[06]
2A.	 (i) The given petrochemical compound is used as a preservative in biological specimens. Identify the suitable specific compound and describe the process for the production of petrochemical compound with a neat flow sheet. (ii) Write any four major engineering problems involved in the production of synthesis gas. 		[05] [01]	
2B.	How to produce the following petrochemical compound? (i) Picric acid (ii) Methyl methacrylate (iii) Mesityl oxide (iv) Ethylene glycol		[04]	
3A.	List out the various methods method and explain the process sheet.	for the production of propylene of ss for the production of propylene	xide. Choose a suitable oxide with a neat flow	[06]
3B.	Give the various reaction pathy	vays (any eight pathways) for the sy	onthesis of aniline.	[04]
4A.	Explain the process for the prosent sheet. Also mention its uses.	oduction of phenol-formaldehyde	resins with a neat flow	[06]
4B.	Discuss about the major engine	eering problems involved in the proc	luction of styrene.	[04]
5A.	Explain the production of Nylo	n 6, 6 with a neat flow sheet.		[05]
5B.	Discuss about the following(i) Production of polyester res(ii) Production of epoxy resin	in with its uses. with its uses.		[2.5] [2.5]

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