

Reg No. \_\_\_\_\_



# MANIPAL INSTITUTE OF TECHNOLOGY

MANIPAL

(A constituent unit of MAHE, Manipal)

## VII SEMESTER B.TECH. (CHEMICAL ENGINEERING) END SEMESTER (MAKEUP) EXAMINATIONS, DEC 2018/JAN 2019

### SUBJECT: ELECTIVE-VI PETROCHEMICALS [CHE 4003]

REVISED CREDIT SYSTEM

Time: 3 hours

Date of Exam: 02/01/2019 AN

Max. Marks: 50

#### Instructions to Candidates

1. Answer ALL the questions.
2. To draw flow diagram use pencil and scale.
3. Each question carries equal marks (5X10=50)

		Marks
1 A	Write down the production process of Synthesis gas by steam reforming process along with chemical reactions and a neat flow diagram.	6
1B	Write down the chemical reactions for the following production processes: a. Perchloroethylene, b. Trichloroethylene, c. Formaldehyde	4
2A	Write down the production process of Ethylene Oxide along with chemical reactions and a neat flow diagram.	5
2B	Explain the process for the production of Cumene along with chemical reactions and a neat flow sheet.	5
3A	Explain the process of the production of Butadiene from butane along with a neat flow sheet.	8
3B	Write down the equations of Phenol production from Benzene Sulfonate Process.	2
4A	Write down the process of Benzene production along with chemical reactions and a neat flow sheet.	5
4B	Short Note on Poly-isobutylene and Polystyrene	5
5A	Write down the production process of Styrene Butadiene Rubber (SBR) and mention few uses.	4
5B	Explain the process for the production of Decon polyester along with chemical reactions and its properties and uses .	6