


Name:			
Enrolment No:			
<b>UPES</b> <b>End Semester Examination, December 2023</b>			
<b>Course: Petroleum Refining and Petrochemical Technology</b> <b>Program: B. Tech Chemical</b> <b>Course Code: CHGS3013P</b>		<b>Semester: VII</b> <b>Time : 03 hrs.</b> <b>Marks: 100</b>	
<b>Instructions: Attempt All</b>			
<b>SECTION A</b> <b>(5Qx4M=20Marks)</b>			
S. No.		Marks	CO
Q 1	Write the definition and significance of following: Octane number and Cetane number.	4	CO1
Q2	What is catalytic reforming? Discuss the catalyst used.	4	CO2
Q3	What is the purpose of doctor sweetening process. Write the name and chemical formula of doctor's solution.	4	CO3
Q 4	List out the raw materials used for the production of petrochemicals.	4	CO2
Q5	Explain in brief occurrence of crude oil.	4	CO3
<b>SECTION B</b> <b>(4Qx10M= 40 Marks)</b>			
Q 6	Explain Merox sweetening method for gasoline treatment.	10	CO4
Q7	What is Vis breaking? Explain in detail with the help of flowsheet.	10	CO4
Q 8	Explain the hydrotreating process with major reactions involved.	10	CO3
Q9	Write the composition of natural gas and explain the sweetening of natural gas with process flowsheet.	10	CO5
<b>SECTION-C</b> <b>(2Qx20M=40 Marks)</b>			
Q 10	Explain the method used to produce olefins in petrochemical industry with the help of flowsheet.	20	CO5
Q 11	Discuss fluidized catalytic cracking explaining the objectives, catalyst involved and major reactions along with process flow diagram.	20	CO4