Name: **Enrolment No:**	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, May 2023

Course: Petroleum Refining and Petrochemical Technology **Semester: VI**
Program: B.Tech Chemical (CE+RP) **Time : 03 hrs.**
Course Code: CHGS 3013 P **Max. Marks: 100**

Instructions: Attempt all

SECTION A
(5Qx4M=20Marks)

S. No.		Marks	CO
Q 1	Differentiate between flash point and fire point test.	**4**	**CO1**
Q 2	Briefly discuss toluene disproportion and hydroalkylation	**4**	**CO2**
Q3	Identify the chemical quoted as kind of chemicals? List out its application.	**4**	**CO2**
Q 4	Discuss first, second and third generation petrochemicals.	**4**	**CO4**
Q 5	Differentiate between hydrotreating and hydrocracking process.	**4**	**CO3**
	SECTION B **(4Qx10M= 40 Marks)**		
Q 6	Describe the parex process with respect to principle, feedstock used, and product formed.	**10**	**CO4**
Q 7	Explain in detail aromatic production process mentioning the catalyst used and the reaction involved with the help of flowsheet.	**10**	**CO1**
Q 8	Discuss the major reactions involved in steam reforming of naphtha/natural gas.	**10**	**CO2**
Q 9	List the different sulfur compounds present in crude oil. Explain the modified Claus process with reactions for removal of sulfur.	**10**	**CO3**
	SECTION-C **(2Qx20M=40 Marks)**		
Q 10	Discuss fluid catalytic cracking process explaining the objectives, type of feedstock used, catalyst involved and major reactions along with proper flow sheet.	**20**	**CO4**
Q 11	Explain the steam cracking of naphtha for the olefins production with the help of flowsheet and major reactions involved.	**20**	**CO2**