

Name:	
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, December 2019

Course: Downstream – Petroleum Refining and Petrochemicals

Semester: VII

Program: B. Tech. CS + OGI

Time 03 hrs.

Course Code: CSOG2005

Max. Marks: 100

Instructions: Answer all the questions of a section, in sequence. Write legibly.

SECTION A (5 x 4 = 20 Marks)

S. No.		Marks	CO
Q 1	What are the metallic elements and the forms in which they are present in crude oil?	4	CO1
Q 2	Discuss the process of removing salts from crude oil.	4	CO2
Q 3	Mention the main reactions involved in catalytic reforming.	4	CO3
Q 4	Define second and third generation petrochemicals. Give examples.	4	CO5
Q 5	Distinguish between chemical and petrochemical. Is Methanol a chemical or petrochemical?	4	CO5

SECTION B (4 x 10 = 40 Marks)

Q 6	Describe atmospheric distillation process with the help of a neat flowsheet. Mention all the units present along with the products.	10	CO2
Q 7	Explain any one of the following processes in detail, with a neat flowsheet. (a) UOP Butamer isomerization Or (b) Delayed coking	10	CO2
Q 8	Describe the process of dewaxing in detail, with a neat flowsheet.	10	CO4
Q 9	What is Nylon – 6,6? Explain its production process with a neat flowsheet.	10	CO4

SECTION-C (2 x 20 = 40 Marks)

Q 10	a) Describe the manufacturing process of acetylene from methane, with a neat flowsheet.	15	CO5
	b) Write short notes on hydroprocessing processes.	5	CO4
Q 11	Describe the following process with a neat flow diagram. a) the process of converting paraffin rich naphtha into aromatics by catalytic reforming.	20	CO5
	Or b) Steam cracking of Naphtha.		