

Name:
Enrolment No:



UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2018

Programme Name: B.Tech.-CS (OGI)

Semester : V

Course Name : Downstream: Petro Refining & Petrochemical

Time : 03 hrs

Course Code : GSEG332

Max. Marks : 100

Nos. of page(s) :1

Instructions:

SECTION A

S. No.	Write short notes on the following	Marks	CO
Q 1	Identify the factors controlling the process of kerogen formation and maturation.	4	CO1
Q 2	Explain the need of GGS and quality estimation of Crude	4	CO2
Q 3	Identify the different types of hydrocarbon formations	4	CO3
Q 4	Differentiate between ADU & VDU	4	CO2
Q 5	Categorize the different types of trays in a VDU	4	CO3

SECTION B

	All questions are compulsory	Marks	CO
Q6	Enlighten in detail the concept of PONA in refining process	10	CO4
Q7	Explain in detail with diagram the desalter process	10	CO4
Q8	Ascertain and explain basic operations of crude oil processing OR Describe in detail different types of Cracking	10	CO4
Q9	Design a thermal cracker unit with its inputs and output constraints.	10	CO5

SECTION-C

	All questions are compulsory	Marks	CO
Q10	Create a detailed refinery design for a sweet crude from IRAN. Keeping in mind all the necessary aspects of the different components of the crude. Identify the main by products and their disposal aspects.	20	CO5
Q11	Identify the pros and cons of FCC and Hydro-cracking OR Explicate in detail the Sulphur removal process in a refinery	20	CO3

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SECTION A

S. No.	Write short notes on the following	Marks	CO
Q 1	Identify the basic reservoir formation aspects of Hydrocarbon.	4	CO1
Q 2	Explain the need of cracking processes and their variety	4	CO2
Q 3	Identify the different primary exploration technologies for exploration	4	CO3
Q 4	Explain in detail the process of FCC	4	CO2
Q 5	Rationalize the requirement of a desalter unit in a refinery	4	CO3

SECTION B

	All questions are compulsory	Marks	CO
Q6	Identify and explain the main components of refining process of hydrocarbon. (with proper Diagram)	10	CO3
Q7	Explain in detail with diagram the isomerization process	10	CO4
Q8	Differentiate between Alkylation and polymerization OR Differentiate between ADU & VDU	10	CO4
Q9	Rationalize all the different components of a crude refinery unit	10	CO5

SECTION-C

	All questions are compulsory	Marks	CO
Q10	For a crude refinery what are the cracking processes you would propose and in what order. Please explain your answer with reasons.	20	CO5
Q11	Describe the best approach for extracting of maximum components from crude OR Identify the best cracking methods and also justify your answer	20	CO3

