Name: **Enrolment No:**	UPES UNIVERSITY OF TOMORROW

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, December 2022

Programme Name: B.Tech. (APE UP) **Semester :** VII

Course Name : Oil & Gas Marketing and Resource Management **Time :** 3 Hrs.

Course Code : CHCE4007P **Max. Marks :** 100

Nos. of page(s) : 2

Instructions:
1. All questions are compulsory.
2. Assume any missing data, if any

S. No.	Section - A (Attempt all questions) (10Qx10M=100Marks)	Marks	CO
Q1	List the features of Hydrocarbon Exploration and Licensing Policy (NELP)	**10**	**CO1**
Q2	Mention the characteristics of the "NBP" natural gas pricing benchmark	**10**	**CO2**
Q3	Summarize the features of the CBM policy from 1997	**10**	**CO3**
Q4	a) Determine the crude oil classification based on ^{0}API b) If the reserves of crude oil and natural gas reserves are 400 MMbbls and 200 Bcf respectively. Determine the total reserves in MMboe	**5+5**	**CO4**
Q5	Discuss the following attributes of the flow measurement devices a) Rangeability b) Repeatability	**10**	**CO4**
Q6	a) Describe various crude oil pricing benchmarks and their characteristics b) Calculate the NCI of an oil refinery, if the capacity of crude distillation unit, vacuum distillation unit, catalytic cracking and catalytic reforming unit are 95 kbd, 50 kbd, 40 kbd, 50 kbd respectively. The complexity data is given in the below table	**5+5**	**CO4**

Unit	complexity factor
Distillation capacity	1.0
Asphalt	1.5

		Vacuum distillation: 2.0 Thermal processes: 2.75 Catalytic hydro refining: 3.0 Catalytic reforming: 5.0 Catalytic cracking: 6.0 Catalytic hydrocracking: 6.0 Alkylation / Polymerization: 10.0 Oxygenates: 10.0 Aromatics / Isomerisation: 15.0 Lubes: 60.0		
Q7	Expand the following abbreviations: a) API b) OECD c) DGH d) CHT e) PPAC		**10**	**CO5**
Q8	Differentiate between concessionary and production sharing contracts		**10**	**CO6**
Q9	Use a schematic to show how cost recovery and profit-sharing work in a production sharing contract		**10**	**CO6**
Q10	a) What is the purpose of strategic petroleum reserves? b) Mention the names and capacities of India's strategic petroleum reserves installations.		**5+5**	**CO6**

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