

Name:	
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, May 2024

Course: MBA OG

Program: Understanding Natural Gas Business

Course Code: OGOG 7011

Semester: II

Time: 03 hrs.

Max. Marks:100

Instructions:

SECTION A
10Q x2 M=20 Marks

S. No.		Marks	CO
Q 1	Fill in the blanks (i) 1 M ³ LNG =..... M ³ of Natural Gas (ii) 1 gallon of propane = ,, ,, ,, ,, ,, ,, ,, ,, Btu	2	CO1
Q 2	What is Rich Gas?	2	CO1
Q 3	What for Mercaptans are used?	2	CO1
Q 4	The composition of CBM gas?	2	CO1
Q 5	Define the “Heating value” of natural gas	2	CO1
Q 6	What is Pigging in pipeline operations?	2	CO1
Q 7	How much natural gas is contained in one cubic meter of Gas Hydrate?	2	CO1
Q 8	What is the API range of liquid condensates?	2	CO1
Q 9	What is the use of a Slug Catcher in the pipeline?	2	CO1
Q 10	What is <i>Pipe –in –Pine</i> technology?	2	CO1

SECTION B
4Qx5M= 20 Marks

Q 1	Describe the Natural gas Composition and its phase behavior. Also, describe <i>Dry- and Wet-Gas Phase Behaviors</i> .	5	CO2
Q 2	Describe the two categories of natural gas applications related to <i>gas components application</i> and <i>gas heat value related applications</i> .	5	CO2
Q 3	Describe the three major Natural Gas Trading Hubs and their role in natural gas market.	5	CO2
Q 4	Describe <i>the three main stages of Gas- to –Liquid (GTL) technology</i> .	5	CO2

SECTION-C
3Qx10M=30 Marks

Q 1	Describe the IGL vs. PNGRB litigation case and the new regulation which was brought in to overcome this aspect in future.	10	CO3
Q 2	Describe the different gas transportation technologies, their economic uses and explain the full LNG value chain.	10	CO3
Q 3	Describe <i>stranded gas</i> , <i>Associated gas</i> and the various techniques to monetize these gas resources. Also give cost implications.	10	CO3

SECTION-D
2Qx15M= 30 Marks

Q 1	Describe the domestic gas pricing mechanism and various committees' recommendations applicable to Indian gas pricing formula. How is the domestic pricing structure compared to Europe?	15	CO4
Q 2	Choose one <i>global or domestic gas field</i> and analyze in terms of its geographic importance, remaining reserves and future potential.	15	CO4