


Name:			
Enrolment No:			
UNIVERSITY OF PETROLEUM AND ENERGY STUDIES End Semester Examination, December 2022			
Course: Fundamental of Oil and Gas Industry Program: B.Tech-CSE AIML Course Code: CSOG3016		Semester: V Time: 03 hrs. Max. Marks: 100	
Instructions: Explain in short. (60-70 words)			
SECTION A (5Qx4M=20Marks)			
S. No.		Marks	CO
Q 1	Explain the role of sedimentary basins in extraction of Hydrocarbon. List various categories of sedimentary basins in India.	4	CO1
Q 2	Transportation industry thrive on gasoline consumption; hence quality of gasoline decides the life of automobile. List characteristic of any ideal gasoline extracted from refinery.	4	CO2
Q 3	Discuss the role of emulsifier in de-salter	4	CO3
Q 4	Converse in brief the process of Migration of Hydrocarbon from Source rock to Reservoir Rock	4	CO1
Q 5	Define the role of AI in Exploration Process	4	CO4
SECTION B (4Qx10M= 40 Marks)			
Instruction: Write brief notes. (100-150 words)			
Q 6	Investigate the importance of drilling fluid and explain different types of Drilling Fluids	10	CO1
Q 7	Define the process of EOR. Explain how AI can improve then performance of EOR.	10	CO4
Q 8	Deliberate various exploration methods used to extract hydrocarbons from earth	10	CO2
Q 9	<p>Exploration and production process can extract mixture of hydrocarbon from the crust of the earth surface. Crude oil is a mixture of hydrocarbons, minerals, and salts. Refinery is responsible for producing customized chain of carbon.</p> <p>Elucidate De- Sulfuring Process undertaken in the refinery for treating sour crude oil.</p> <p>Or</p> <p>Elucidate Fluid bed Catalytic cracking Process undertaken in the refinery to extract 6-Carbon chain.</p>	10	CO3

SECTION-C (2Qx20M=40 Marks) Instruction: Write long answer. (Up to 350 words while explaining) Attempt any part of question no. 10 as there is an option “a” OR “b”. There is no choice for question no.11.			
Q 10	Discuss various steps undertaken in Vertical drilling. Support your answer with proper diagram and explain the finding of log generate in each phase <p style="text-align: center;">Or</p> Elucidate the various process undertaken in the refinery to process crude oil	20	CO1
Q 11	Elucidate the Exploration Life cycle of Hydrocarbon. Explain the role of AI in improving the efficient of each phase	20	CO4