

Name:	
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, December 2020

Programme Name: B. Tech. APE (Gas)	Semester : III
Course Name : Introduction to Petroleum Operations	Time : 03 hrs
Course Code : PEAU 2002	Max. Marks: 100
Nos. of page(s) :	

Instructions: 1) There are two sections. Section A for 60 marks and Section B for 40 marks.
 2) Answer the questions in sequence.
 3) Diagrams must be drawn wherever necessary.

SECTION A (6 X 5 = 30 Marks)

Answer all questions

S. No.		Marks	CO
1.	Explain the organic theory for the formation of petroleum.	5M	CO1
2.	What is meant by primary and secondary migration?	5M	CO1
3.	Describe geochemical techniques for the exploration of oil and gas?	5M	CO2
4.	What is a drilling fluid? What are the functions of drilling fluids?	5M	CO3
5.	What is a log? What are the various fields in which logging is utilized?	5M	CO4
6.	What is drill stem test? What are the functions of drill stem test?	5M	CO5

SECTION B (5 X 10 = 50 Marks)

Answer all questions

7.	Explain the measurement of gravity using gravimeters and the corrections applied for it?	10M	CO2
8.	With a neat diagram of rotary drilling, explain the hoisting components in detail.	10M	CO3
9.	What is a core? What are different coring methods? Explain any one method.	10M	CO4
10.	Draw a horizontal separator and explain its working.	10M	CO5
11.	What is gas metering? Explain orifice meter for measurement of gas?	10M	CO6

SECTION C (1 X 20 = 20 Marks)

Answer any one question

12.	Describe the methods for treating oil-water emulsions.	20M	CO6
OR			
13.	Explain what is OPEC? What is the purpose of forming OPEC? Who are the members of OPEC currently? Mention what are the factors that can influence the gasoline price? What is API gravity and how is it calculated?	(4+4+4 +4+4) 20M	CO6