

Name:	 UPES UNIVERSITY WITH A PURPOSE
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December 2019

Course: Petroleum Geology
Program: B.Tech. GIE/GSE
Course Code: PEGS 3011

Semester: V
Time 03 hrs.
Max. Marks: 100

Instructions:

SECTION A
Total Marks : 20

S. No.		Marks	CO
Q 1	Write short Notes on: (i) Petroliferous Basin (ii) Geological Time Scale (iii) Primary migration of hydrocarbon (iv) Proved Reserves	(3+1+3+3 = 10)	CO2
Q.2	Differentiate between : (i) Upstream and downstream (ii) Exploration and Exploitation (iii) Exploration and Appraisal phase of oil and gas field life cycle (iv) NELP and HELP	(2+2+3+3 = 10)	CO1

SECTION B
Total Marks : 40

Q.3	Illustrate Biogenic and Thermogenic gas with a neat figure	(10)	CO3
Q.4	Describe the categories of Indian sedimentary basins with examples	(10)	CO1
Q.5	(a) Explain the compelling reasons that support the organic theory for oil and gas origin OR, (b) Define the term porosity and permeability. Describe the factors that control porosity.	(10)	CO2
Q.6	Describe the preservation mechanism of Organic Matter and generation mechanism of hydrocarbons.	(10)	CO2

SECTION- C
Total Marks : 40

Q.7	<p>Explain the following terms with neat figures:</p> <p>(i) Anticlinal Trap (ii) Fault Trap (iii) Salt Dome Trap (iv) Lenticular trap (v) Truncation trap</p> <p style="text-align: center;">OR,</p> <p>(a) Describe the zone in the earth's crust where oil is generated. Illustrate your answer with a neat figure.</p> <p>(b) Explain with suitable justification for organic origin of hydrocarbons.</p>	<p style="text-align: center;">(4× 5 = 20)</p> <p style="text-align: center;">(20)</p>	<p style="text-align: center;">CO3</p>
Q.8	<p>(a) Classify the chemical composition of hydrocarbons.</p> <p>(b) Describe the petroleum system of any one of category I Sedimentary basins of India.</p>	<p style="text-align: center;">(10+10)</p>	<p style="text-align: center;">CO4</p>