

<b>Name:</b>	 <b>UPES</b> UNIVERSITY WITH A PURPOSE
<b>Enrolment No:</b>	

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

**Course: Petroleum Geology**  
**Program: M.Tech. PE**  
**Course Code: PEGS 7001**

**Semester: I**  
**Time 03 hrs.**  
**Max. Marks: 100**

**Instructions:**

**SECTION A**  
**Total Marks : 20**

S. No.		Marks	CO
Q 1	Write short Notes on:  (i) Gaining Access Phase of oil and gas field life cycle (ii) Appraisal Phase of oil and gas field life cycle	(5×2 = 10)	CO1
Q.2	Distinguish between : (i) Biogenic and Thermogenic gas (ii) NELP and OALP	(5×2 = 10)	CO1

**SECTION B**  
**Total Marks : 40**

Q.3	Although NELP rounds have attracted many private & foreign companies, in addition to public sector oil companies, but it had failed in many ways.  (i) Elaborate this statement (ii) Analyze the impact of this failure.	(5×2 = 10)	CO1
Q.4	Describe the two most important petro physical properties of reservoir rock. Illustrate your answer with neat figures.	(10)	CO4
Q.5	Write short notes on characteristics of crude oil :  (i) API gravity (ii) Pour point (iii) Viscosity (iv) Boiling point  <b>OR,</b> Write short notes on characteristics of natural gas:  (i) Sweet gas, (ii) Sour gas (iii) Associated gas (iv) Wet gas	(2.5×4 = 10)	CO2

Q.6	Describe the zone in the earth's crust where oil is generated. Illustrate your answer with a neat figure.	(10)	CO3
<b>SECTION- C</b> <b>Total Marks : 40</b>			
Q.7	(a) Define the term sedimentary basin. (b) Describe the theories for basin formation. (c) Describe the various types of divergent basins.	(2+6+12 = 20)	CO5
Q.8	(a) Distinguish between hydrocarbon resource and reserve. (b) Describe the classification of hydrocarbon reserves. <p style="text-align: center;"><b>OR,</b></p> Describe the classification of hydrocarbon resource.	(5)  (15)	CO6

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