

Name:	 UPES UNIVERSITY WITH A PURPOSE
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, January 2021

Course: Petroleum Geology	Semester: I
Program: M.Sc. Petroleum Geoscience	Time: 03 hrs.
Course Code: PEGS 7004	Max. Marks: 100

SECTION A

1. Each Question will carry 5 Marks
2. Instruction: Complete the statement / Select the correct answer(s)
3. All Questions are compulsory.

SECTION A [Type answers]

1. Each question will carry 5 marks.
2. Attempt all the Questions.

S. No.		Marks	CO
Q 1	Define source and Reservoir rock.	5	CO1
Q 2	Select True/False- <ol style="list-style-type: none"> i. Any fine grain and impermeable sedimentary rock can act as source rock. ii. Any fractured/permeable rock types can be petroleum reservoir. iii. Evidence of fossils record from rocks support for inorganic origin of Petroleum. iv. Salt dome is an example of structural trap only. v. Vindhyan basin comes under category I Basins. 	5	CO1
Q 3	Define structural and stratigraphic traps.	5	CO3
Q 4	Fill in the Blanks- <ol style="list-style-type: none"> i. India has total..... number of Petroliferous basins. ii. Example of category IV basin in India is..... iii. Dissolution porosity develop only inRocks. iv. Two Reservoir rock types are..... v. Secondary migration of HC depends on these three parameter 	5	CO2
Q 5	Define the API. Classify the hydrocarbons by API.	5	CO1
Q 6	Illustrate types of Hydrocarbon Migration.	5	CO2

SECTION B [Scan & Upload]

1. Each question will carry 10 marks.
2. Instruction: Write short / brief notes.
3. Attempt all the Questions.

Q 1	State the theory with evidences of organic and inorganic origin for hydrocarbon.	10	CO2
Q 2	Write a short notes on any two: <ol style="list-style-type: none"> i- Oil Window ii- Salt dome 	10	CO3

	iii- Kerogen		
Q 3	Explain any four geological factors, which change the maturation of organic matters.	10	CO4
Q 4	Explain the role of geo-environmental conditions for preservation of organic matter and hydrocarbon generation. Graphically Illustrate, where the oil and gas window occurs in Catagensis stage.	10	CO4
Q 5	Illustrate types of geological traps for hydrocarbon accumulation within subsurface.	10	CO3
SECTION-C [Scan & Upload]			
1. Each Question carries 20 Marks.			
2. Instruction: Write long answer.			
Q 1	Describe the Lithostratigraphy, Tectonic framework, Petroleum system and Hydrocarbon exploration & Production status of Assam Arakan basin. Use necessary diagram to explain.	20	CO4
	OR		
	Describe the Lithostratigraphy, Tectonic framework, Petroleum system and Hydrocarbon exploration & Production status of Vindhyan basin. Use necessary diagram to explain.	20	CO4