

Name:	 UPES UNIVERSITY WITH A PURPOSE
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

Online End semester Examination, January 2020

Course: Sedimentology and sequence stratigraphy

Semester: I

Program: M. Sc Petroleum Geoscience

Time 03 hrs.

Course Code: (PEGS 7006)

Max. Marks: 100

SECTION A [6x5=30marks]

- 1. Each Question will carry 5 Marks**
- 2. Instruction: Complete the statement / fill the correct answer(s)**

S. No.	Question	CO
Q 1	Differentiate igneous, metamorphic and sedimentary rocks	C01
Q2	Mention five sedimentary rock structures	C01
Q3	Mention five sedimentary rock texture	C01
Q4	Mentions about sedimentary rock diagenesis processes.	C03
Q5	List the components of the lower delta plain	C01
Q6	Differentiate primary porosity and secondary porosity	C03

SECTION B[5x10=50marks]

- 1. Each question will carry 10 marks**
- 2. Instruction: Write short / brief notes**

Q 7	Discuss the components of the lower delta plain. Draw a generalized sedimentary lithofacies diagram of a delta (10)	C03
Q 8	Compare characteristics of fluvial dominated and tidal dominated deltas [10]	C03

		C03
Q 9	Discuss different categories of clastic rocks with examples. Write the mineral composition of sandstone, shale, dolomite and limestone [5+5=10 marks]	C03
Q 10	Discuss about (a) rift basin, (b) backarc basin (10marks)	C04
Q 11	Describe the sedimentary structures, (i) ripple mark, (ii) herringbone structure	C04
OR		
Q 11	Describe the rock types, sediment texture in meandering, braided channel and estuary. (10marks)	C04
Section C		
1. Question 12 carries 20 Marks. 2. Instruction: Write long answer.		
Q12	(a) Discuss the petroleum system of Cambay Basin. (b) Analyze the sequence stratigraphy terms: (a) transgression, (b) regression (c) progradation, (d) aggradation (10+10)	C05
OR		
Q12	Sequence stratigraphy is important to all subsurface geologists, and a thorough understanding of the principles can help you with a wide variety of plays, ranging from deep marine clastics, to fine-grained clastics. (a) Discuss sequence stratigraphy method of stratigraphic interpretation. (b) Analyse the importance of sequence stratigraphy interpretation in petroleum exploration. (10+10)	C05