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Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
Online End Semester Examination, May- 2021

Course Name: Sedimentology	Semester: IV
Programme Name: B. Tech, GIE	Time: 03 hrs
Course Code: PEGS 2005	Max. Marks: 100

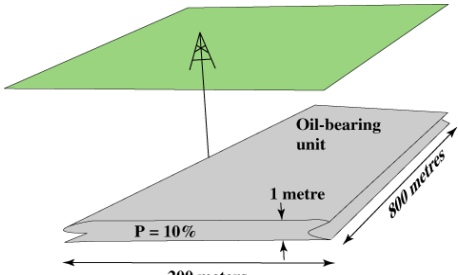
SECTION A (30 Marks)

Q 1	<ul style="list-style-type: none"> a. Arenaceous rocks are predominantly consist of--- b. Sedimentary structure shows fining upward sequence, indicative of depositional cycle when the turbulent current slows down is ---- c. Inverted cone shaped deltas are commonly called as----- d. Sedimentary bedding pattern displaying sand sagging known as --- e. Conglomerate characterized by the presence of clasts that have the same composition as that of the cement/ matrix known as ---- 	05	CO3
Q 2	<p>Mark True/ False</p> <ul style="list-style-type: none"> a. Coal is a biochemical rock b. Shape of particle indicate textural maturity c. Texture is controlled by deposition process d. Grains penetrating one another give rise to long contact e. Increasing packing density decreases the porosity and permeability of rocks. 	05	CO1
Q 3	<p>Mark True/ False</p> <ul style="list-style-type: none"> a. Conglomerates consists of more than 15% matrix are para-conglomerate b. Deltas represent transitional environment c. Sandstone represents Arenites d. Mudstone represents Delta front e. Cement formed during deposition of sediments 	05	CO1
Q 4	<p>i. The vertical sequence of preserved sedimentary environments ("Facies") indicating a rising sea level would be:</p> <ul style="list-style-type: none"> (a) river, beach, shallow marine, deep marine. (b) beach, shallow marine, deep marine, river. (c) shallow marine, deep marine, beach, river. (d) deep marine, shallow marine, beach, river. <p>ii. The main difference between a breccia and a conglomerate is:</p> <ul style="list-style-type: none"> (a) particle size. (b) particle shape. (c) color. (d) mineral composition. 	05	CO2

	<p>iii. A sandstone with more than 25% feldspar and poorly sorted, angular grains is called:</p> <p>(a) quartz arenite. (b) arkose. (c) graywacke. (d) quartzite.</p> <p>iv. A clastic rock is</p> <p>(a) a rock formed from the cementation of transported grains (b) a rock formed from evaporation of sea water (c) transformed by heat into limestone (d) transformed by pressure into limestone</p> <p>v. Which of the following types of sediments are most abundant</p> <p>(a) coarse clastic (b) fine clastic (c) chemical (d) biochemical</p>		
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Q 5	Differentiate between primary and secondary packing	05	CO2
Q 6	Define CCD	05	CO1

SECTION B (10*5=50 Marks)

Q 7	<p>Length= 200mtrs, Width= 300mtrs, Thickness=01mtrs, Porosity=10%. Calculate volume of oil present in given unit</p> 	10	CO2
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Q 8	Analyse the role of grain and matrix relationship in defining textural maturity of sedimentary rock.	10	CO4
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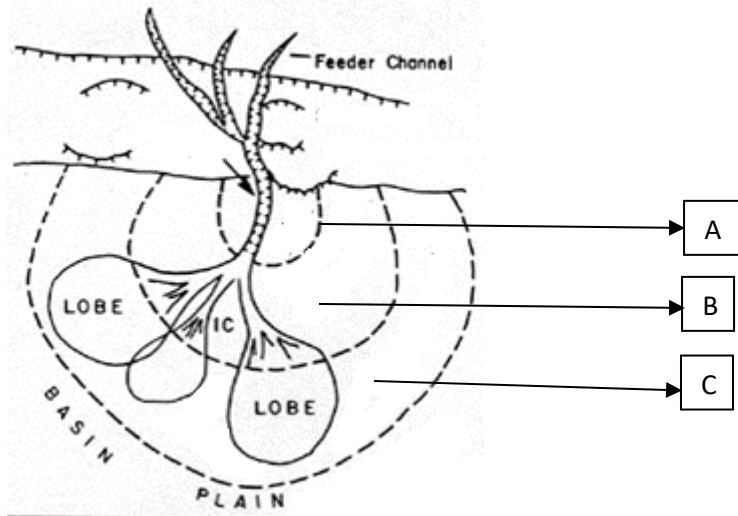
Q 9	Examine the concept of gravity inversion and role of other parameters in soft sediment deformation structures	10	CO3
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Q 10	“Cross beds are formed inside Ripple Marks” Argue/ defend the same with suitable justification	10	CO4
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Q 11	<p>Differentiate between Dunham & Folk’s classification schemes and suggest the better one</p> <p align="center">OR</p> <p>Using QFL diagram, classify Sandstone, highlighting the role of matrix percentage.</p>	10	CO2
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SECTION C (20 Marks)

Q 12	Identify the feature and its depositional environment. Demarcate the various zones with their respective facies type. The facies types provided with suitable justification/s.	5+15 =20	CO4
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OR

Apply Walther's law and construct onlap and off lap sequence in marine environment.

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