


Name: Enrolment No:	
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UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, May 2022

Course: Structural Geology	Semester: II
Program: B-Sc., Hon's in Geology	Time : 03 hrs.
Course Code: PEGS-1006	Max. Marks: 100
No of pages : 02	

Instructions: Carefully read the questions and answer. All the questions are compulsory in section A and Section B & C for Q 9 and Q 11 has internal choice.

SECTION A **(5Qx4M=20Marks)**

S. No.		Mar ks	CO
Q 1	Define the following terms in context with surveying; Dip and Strike, Lineation and Foliation.	4	CO1
Q 2	Fill in the blanks with suitable answer I. The -----bedding are due to differential pressure with folds shapes patterns II. All impervious boundary lines are called as..... Line III.joints formed perpendicular to column axes due to contraction. IV. The circular laminated algal or calcareous detritus biochemical structure is called.....	4	CO1
Q 3	Distinguish between the following terms: a) Antithetic and Synthetic fault b) Cuspate and Lunate ripples	4	CO2
Q 4	Select correct choice (True or False) for the following questions: a. The sub marine eruptions are also formation of pillow lava b. The meter was redefined in 1983 by the SI unit c. The dune sand size is larger than transition (beach-river) sand d. In the sub viscous condition the grains are developed rough boundary.	4	CO2
Q 5	Chose the correct answer from the given (MCQ) choice and write: a)The volcanic vent or dome with steep-sided lava flows called as 1. Blocks 2 Spines 3 Coluees b)The Indian geodetic datum system is mainly based on..... survey 1.EGM 2 GSI 3 GTS c)Who is first proposed metric system with absolute 1, Maxwell 2 Gauss 3 None of these d)The -----Marks are elongated v-shaped depression in soft sediments 1. Groove 2. Chevron 3. Prod	4	CO3

SECTION B (4Qx10M= 40 Marks) (Q. Number 6, 7 and 8 compulsory in Q.9 answer one Q.9i) OR Q.9 ii)			
Q 6	a) The apparent dips were record in a sandstone outcrop is as follows a) 220°, 25°SW and 160°, 25° SE . Find the direction and amount of true dip amount. b) Explain in brief the merit and demerit of datum in context with structural geology.	5+5	CO4
Q 7	Discuss in brief parts of fold and their significance in fold analysis.	10	CO5
Q 8	Describe in brief occurrence and role of following terms in context with structural analysis: a) Antidunes b) Pinnate fractures c) Hummocky stratification d) Plumose structures	10	CO4
Q 9	i) Explain in brief methods of classification of joints and their application in structural geology. <p style="text-align: center;">OR</p> ii) Describe in details classification of volcanoes and their significance in structural geology.	10	CO5
SECTION-C (Q.10 is compulsory and Q.11 answer one Q 11a OR Q,11 b 2Qx20M=40 Marks)			
Q 10	a) Draw neat sketches of parts of faults and their importance in fault analysis. b) Explain in brief the classification of fold based on dip axial surface and plunge.	10+ 10	CO6 CO3
Q.11	a) Explain in brief the significance of following terms in structural analysis: a) Stress-strain b) Buckling c) Decollement d) Kink e) Passive flow f) fracture <p style="text-align: center;">OR</p> b) Describe in brief the terms given below with neat sketch in context with structural geology: a) Supratenuous fold b) Anticlinorium and Synclinorium c) En-echelon fault d) Fault propagated fold e) Rollover anticline f) Conjugate fault	20	CO6
		20	CO6