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Enrolment No:



UPES

End Semester Examination, December 2023

Course: Structural Geology Semester: III

Program: BSc Geology Time : 03 hrs.
Course Code: PEGS2037 Max. Marks: 100

Instructions: Attempt all the Questions. There is a choice in question no 9, 10 and 11

SECTION A (5Qx4M=20Marks) S. No. CO Marks Draw a structure of the class 3 fold 01 4 CO₁ **Q**2 A formation has true dip of 1:5 due E determines the amount of apparent dip due N50⁰E also find out the direction along which the amount of 4 CO₂ apparent dip will lie 1:10 Q3 Distinguished between dip isogons and orthogonal thickness 4 **CO1** Q4 Discuss the concept of negative and positive flower structures 4 **CO1** Q5 Differentiate between forearc and back-arc basin 4 CO₂ **SECTION B (40x10M= 40 Marks)** Describe the landform associated with folded mountains **Q**6 10 CO₂ **S**7 Explain the criteria for identification of fault in the field 10 CO₃ **Q**8 Differentiate between Fluty and Ramsay classification of folds 10 CO₃ 09 Define Brittle and ductile deformation with a suitable diagram OR Explain the following in the context of plate tectonics 10 CO₃ a. Convection current **b.** Sea floor spreading **SECTION-C(2Qx20M=40 Marks)** Q10 Elaborate the Mesozoic and tertiary Succession of the Himalayas CO₄ 20 Interpret Wegener's theory of continental drift and give evidence to support the theory. Comment on the formation of the Himalayan geological structures in Q11 detail CO₄ 20 OR Elaborate the geometry of different fault patterns and explain Anderson's

classification of fault with a suitable diagram