

This question paper contains 2 printed pages]

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S. No. of Question Paper : 8581

Unique Paper Code : 219301

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Name of the Paper : GEHT 301 : Structural Geology

Name of the Course : B.A. (Hons.) Geology (Part II)

Semester : III

Duration : 3 Hours

Maximum Marks : 75

(Write your Roll No. on the top immediately on receipt of this question paper.)

Attempt any five questions.

All questions carry equal marks.

1. What are folds? Give their geometrical properties. Discuss the significance of co-ordination of hinge lines and axial surfaces in fold classification with suitable illustrations.
2. Briefly describe the "strain ellipse concept" and its applicability in the development of various structures in a deformed region.
3. Give a brief account of various planar structures. Add a small note on their significance.
4. What are joints? How do they differ from faults? Give a genetic and geometrical classification of joints.
5. Briefly describe how Beta and Pie diagrams are helpful in solving simple structural geology problems.
6. Differentiate with suitable sketches:
 - (i) Strike fault from strike-slip fault
 - (ii) Recumbent fold from reclined fold.
 - (iii) Fault surface from an unconformable surface

P.T.O.

7. Write short notes on the following:

- (i) Boudinage structure and its significance
- (ii) Intersection lineation
- (iii) Strain ellipse concept
- (iv) Mylonite
- (v) Disjunctive cleavage

8. What is 'stress'? Define mathematically, the stress system at a point within a three-dimensional body.