

**B. Sc. 2<sup>nd</sup> Semester (Honours) Examination, 2021-2022**

**GEOLOGY**

**Course Id: 22012**

**Course Code: SHGEL-202C-4(T)**

**Course Title: Structural Geology**

**Time: 1 Hour 15 Minutes**

**Full Marks: 25**

*The figures in the right-hand side margin indicate full marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

1. Answer any five of the following questions: 1X5 = 5
    - a. What is a nondiastrophic structure?
    - b. Define viscous deformation.
    - c. What is creep strain?
    - d. What is a cylindrical fold?
    - e. What is a synformal anticline?
    - f. What is overturned fold?
    - g. Define graben.
    - h. Define slickenside.
  
  - i. Answer any two of the following questions: 5X2 = 10
    - a. Write a short note on different types of strain ellipsoid.
    - b. Classify folds based on the interlimb angle.
    - c. Distinguish between the followings: (i) apparent dip and true dip, ii) pitch and plunge
    - d. Write a short note on the variation of the orientation of principal axes of stress in the formation of normal, reverse, and strike-slip faults.
  
  3. Answer any one of the following questions: 10X1 = 10
    - a. Briefly discuss the application of non-diastrorphic structures in sedimentary and igneous rocks to determine the right-side-up of a stratigraphic sequence.
    - b. Describe with sketches, the classification of folds based on the relative curvature of two successive folded surfaces and variation of thickness of folded layer from hinge to limb.
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