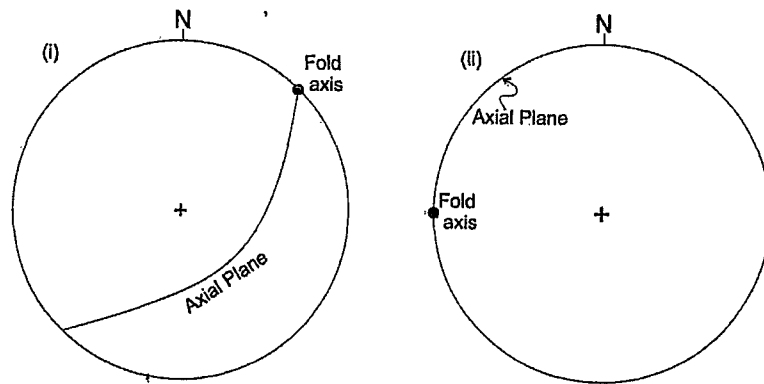


- (b) Identify and briefly discuss about the fold geometry with help of neat and well-labelled sketch. (10)



6. Discuss about the approach for execution of a successful geological mapping field work. Elaborate about the concept of Fore Bearing and Back Bearing during geological mapping.

[This question paper contains 4 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 5846

K

Unique Paper Code : 2192013503

Name of the Paper : Geological Mapping

Name of the Course : B.Sc. (Hons) Geology (NEP-UGCF)

Semester : V-DSE-15

Duration : 2 Hours

Maximum Marks : 60

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt any **four** questions in all.
3. **All** questions carry equal marks.
4. Use suitable and labelled diagrams wherever required.

1. (a) Describe the important components of a topographic map.

- (b) What is the meaning and significance of scale in geological/topographic mapping?
- (c) How do the contours help in providing crucial information about the topography?
2. (a) What are the important characteristics of rocks that help in their identification in the field and in the lab?
- (b) Describe a litholog and its significance. What are the various steps in the preparation of a litholog?
- (c) How does the 'rule of V' help in outcrop interpretation?
3. (a) Define the attitudes of an inclined planar structure.
- (b) Explain the trend, plunge, and pitch of a given linear structure with the help of a diagram.
- (c) How does the Global Positioning System work, and what is its use in geological mapping?

4. (a) How can the omission and repetition of beds observed on a geological map be interpreted in terms of faulting and folding? Explain with help of suitable diagrams and examples.
- (b) An upright, non-plunging, cylindrical fold is exposed in an area. With respect to its geometry, define the following terms :
- (i) Axial plane
- (ii) Fold axis
- (iii) Profile plane
- (iv) Interlimb angle
5. During the fieldwork, the collected structural data of folded strata from two outcrop locations is represented by stereonet (i) and (ii) below. For each stereonet:
- (a) Specify the attitude of fold axis and the axial plane. (5)