2024

2nd Semester Examination

GEOLOGY (Honours)

Paper : C 4-T

(Structural Geology)

[CBCS]

Full Marks : 40 Time : Two Hours

The figures in the margin indicate full marks.
Candidates are required to give their answers in their own words as far as practicable.

Group - A

Answer any ***five*** questions. 2×5=10

1. Define reclined fold with a neat sketch.
2. Name two primary igneous structures that indicate facing.
3. Differentiate between paraconformity and disconformity.
4. Define oblique-slip fault with a neat sketch.
5. Differentiate between crenulation and disjunctive cleavage with a neat sketch.

P.T.O.

6. Write down the matrix for extensional stress (tension) and establish the relation among the principal stress components.

7. Differentiate between antiformal syncline and synformal anticline.

8. What are kink bands? How do they form?

Group - B

Answer any ***four*** questions. 5×4=20

9. Describe any two primary sedimentary structures that indicate top direction. 2½×2=5

10. (a) How do you represent state of stress at a point?

    (b) Define plane strain with a neat sketch. 3+2

11. Differentiate between any ***two*** of the following : 2½×2=5

    (a) Active folding vs Passive folding

    (b) Schistosity vs Gneissosity

    (c) Cleavage fanning vs Cleavage refraction

12. How do you recognize fault in field?

13. Write a short note on types of lineations with a neat sketch.

14. Discuss the relation of joints with fold and fold axis.

Group - C

Answer any ***one*** question. 10×1=10

15. (a) What parameters are used in Ramsay's classification of folds?

    (b) Draw t'α versus α and T'α versus α graphs for the five categories of folds and describe each of them. 3+7

16. (a) What is mylonite?

    (b) Write a note on types of deformation with suitable curves and geological examples. 2+8

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