



QP CODE: 25050535



25050535

Reg No :

Name :

MSc DEGREE (CSS) EXAMINATION DECEMBER 2025

First Semester

M Sc GEOLOGY

Core Courses - GL010103 - STRUCTURAL GEOLOGY AND TECTONICS

2019 Admission Onwards

7173FE7E

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

Weight 1 each.

1. Define stress and strain.
2. Explain the brittle deformation of rocks.
3. What are the drag folds? and how do they form?
4. What is a horse?
5. Distinguish S and B tectonites.
6. What are the field techniques involved in the selection of rock samples for petrofabric analyses.
7. Explain the determination of strain by direct measurement of strain axes.
8. Discuss the concept of supercontinents with examples.
9. Explain the Himalayan Orogeny as a result of collision tectonics.
10. Discuss the Southern Granulite Terrain (SGT).

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

Weight 2 each.

11. Write a note on homogenous and heterogenous deformations of rocks.
12. Write a note on stress strain ellipsoids with neat sketches.
13. Write a note on Ramsay's classification of folds with respect to the dip isogons.
14. Discuss various fault systems that associated with divergent plate margins.
15. Discuss the origin of foliations and their classification.





16. Describe the fundamentals of geometric analysis.
17. Discuss equal area stereographic projection of structural features, and explain π and β diagrams.
18. Discuss the shear zones which limit the Madurai Block at North and South.

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

Weight 5 each.

19. Discuss the superimposition of folds, and various fold interference patterns proposed by Ramsay.
20. Give an account of geometry, mechanism of formation and classification of shear zones.
21. Give an account of axial plain foliations and fracture cleavage, and their use in structural interpretations.
22. Write an essay on different types of plate margins, their global distribution, and geodynamic processes associated with them.

(2×5=10 weightage)

