

MSc Sem.-1 Examination

402

Geology

February-2025

Time : 2-30 Hours]

[Max. Marks : 70

Instructions: (i) Draw neat diagrams whenever necessary.
(ii) Write proper answer number.

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- Q-1 Write a detailed note on theory of rock failure. (14)
- OR
- Q-1 (a) Compressional stresses. (07)
(b) Elastic, plastic and brittle behavior in rocks. (07)
- Q-2 Explain overthrusts. (14)
- OR
- Q-2 (a) Classification of faults. (07)
(b) Strike-slip faults of India. (07)
- Q-3 Discuss the various causes of folding in detail. (14)
- OR
- Q-3 (a) Fold development and distribution of strains in fold. (07)
(b) Types of interference patterns in superimposed folding. (07)
- Q-4 Describe geometrical analysis of complex structures. (14)
- OR
- Q-4 (a) Significance of folds in mining. (07)
(b) Fracture, shear and axial plane cleavages. (07)
- Q-5 **Attempt any seven questions out of twelve.** (14)
- (i) Define dilation. Give one example.
- (ii) What is kinetic analysis of rock? How it is justified?
- (iii) What is deformation? State the example.
- (iv) Name the locations of Kachchh, where graben and horst are found.
- (v) What is rouding structure? Give example.
- (vi) Write about folded thrusts.
- (vii) Give the characteristics of pre-tectonic pluton.
- (viii) Define autolith and distinguish it from xenolith.
- (ix) State the composition of salt domes.
- (x) What is pseudotachyllite? Where it commonly occurs?
- (xi) Draw a symbol for vertical foliation striking NW-SE with lineation plunging 27° NW.
- (xii) Define rock cleavage. Give example.