

M.Sc Semester-4 Examination

509

Geology

April-2024

Time : 2-30 Hours]

[Max. Marks : 70

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

- Q-1. Describe ash fall, ash flow, lahar deposits and lithic, vitric and crystal tuffs. (14)
- OR
- Q-1. (a) Classification of conglomerates. (07)
(b) Composition of sedimentary rocks. (07)
- Q-2. Write detailed notes on post-depositional and erosional sedimentary structures. (14)
- OR
- Q-2. (a) Continental desert environment. (07)
(b) Shallow water carbonate deposits. (07)
- Q-3. Explain sedimentary diagenesis and differentiation. (14)
- OR
- Q-3. (a) Shallow sub-tidal cementation in carbonate diagenesis. (07)
(b) Sedimentary cycles, rhythms and cyclothems. (07)
- Q-4. Write an explanatory note on sedimentary diagenesis of carbonate rocks with change in mineralogy, fabric and chemistry. (14)
- OR
- Q-4. (a) Sedimentary diagenesis of mudstones. (07)
(b) Recording of sedimentary structures, preparation of lithologs, rock staining and thin section staining. (07)
- Q-5. **Attempt any seven questions out of twelve.** (14)
- (i) Define lava tube and lapilli.
 - (ii) What are diamictite and roundness?
 - (iii) Name limestones as per Folks' classification.
 - (iv) Draw diagrams of various types of cross-stratification.
 - (v) Define abyssal deposit and current.
 - (vi) Draw a diagram of delta structure.
 - (vii) Define correlative conformity and stylolite.
 - (viii) Define Low-stand System Tract (LST) and mention in which way sedimentary structures are recorded?
 - (ix) Give names of two marine paleoenvironments.
 - (x) Define foreland basin and rift basin.
 - (xi) What are flysch and auto geosyncline?
 - (xii) Mention effects of subsidence on sedimentation.