

2009-2010
M.Sc (IV SEMESTER EXAMINATION
(APPLIED GEOLOGY)
GEO-CHEMISTRY - II
(GLM-X001)

Maximum Marks: 35

Duration: Two Hours.

Answer all the questions.

- 1. Explain geo-chemical characteristics of the following: 09
 - (a) EM-2
 - (b) PREMA
 - (c) SMOW

OR



- 1'. Give a detailed account of the application of isotopes in exploring the genesis of magmatic rocks.
- 2. Give an account of fractionation of Nitrogen isotopes in different geological environment. 09
- 3. Write explanatory notes on any two of the following: 08
 - (a) Fugacity ✓
 - (b) Partitioning of elements in mineral assemblages ✓
 - (c) Distribution coefficient ✓

- 4. Give a detailed account of sediment geochemistry and its significance. 09

OR

- 4'. Write detailed notes on the following:
 - (a) Geochemical – biogeochemical cycle vis-a-vis global climate
 - (b) Atmospheric composition and its evolution through geological times

→ 1^{st} law of Thermodynamics
 → Activity.
 → Principles of ionic substitution.