

B. Sc. Semester I
GEOLOGY - THEORY and PRACTICALS
Course-wise detail syllabus

GEM 111

General and Physical Geology, Mineralogy

Unit	Course details
Unit –1	EARTH AS A PLANET: General principles of geology as a science. Branches & scope of subject. Earth as a member of solar system – shape, size, mass and density of the earth – its movements. Origin of the earth – review of the different theories. Origin of the universe and evolution of the solar system.
Unit –2	MINERALOGY: Chemical bonding and compound formation. Definition, Classifications and Physical properties of minerals.
Unit - 3	EARTH'S INTERNAL STRUCTURE: Earth's internal structure, constitution, composition and formation. Brief introduction to Radioactivity and age of the Earth. Introduction to Convection in the earth's interior and earth's magnetic field.
Unit - 4	PHYSICAL GEOLOGY: Weathering, erosion, denudation, transportation and deposition. Introduction to Geological agents – Glaciers, Rivers, Lakes, Winds.

Reference Books:

- 1) Introduction to Physical Geology, A. K. Datta, Kalyani Publisher, New Delhi.
- 2) A Text Book of Geology, P. K. Mukerjee, World press.
- 3) A Text Book of Geology with Special Reference to India, G. B. Mahapatra.
- 4) General Geology, V. Radhakrishnan (1987), V.V.P. Publishers, Tuticorin.
- 5) Engineering and General Geology, Parbin Singh (1994), S.K. Kataria and Sons, Delhi.
- 6) Rutley's Elements of Mineralogy, H. H. Read, CBS publishers.
- 7) Introduction to Rock Forming Minerals, R. A. Deer, R. E. Howie and J. Zussman (1978), The English Language Book Society.