

Second Semester
Paper Code:
Earth: The Living Planet: GenEd-GEOL-02
Full Marks 50
Marks: 35

1. Internal Constitution of the Earth: Evidences from Seismic studies
2. Earthquakes, intensity and magnitude, elastic rebound theory, focus and epicenter, seismograms. Global earthquake belts. Seismic zones of India.
3. Gravity and gravity anomaly on Earth, Bouguer and free-air anomaly. Concept of isostasy and compensation, hypotheses of Airy, and Pratt.
4. Volcanoes and volcanism, eruptive styles.
5. Earth's surface processes. Weathering, erosion, mass wasting and sedimentation; bed rock, regolith, soil, soil profile. Erosion, transportation and deposition.
6. Rock deformation and deformation structures
7. Plate tectonics: Definition of plates; Plate motion – absolute and relative; driving forces and evidences. Plate boundaries and orogeny.

Practical/Projects/Internal Assignment:

Marks: 15

Study of rock deformations in laboratory/in field, or Projects related to rock deformation

Suggested books :

1. Press, F., Siever, R., Grotzinger, J. and Jordan, T.H., 2004, Understanding Earth, 4th Edn., W.H. Freeman, 567 p.
2. Tarbuck, E.J. and Lutgens, F.K., 2006, Earth Science, 11th Edn., Pearson Prentice Hall, New Jersey, 726 p.