

**ELECTIVE – V – COASTAL GEOMORPHOLOGY**

**Unit I**

Coastal ecosystems, geomorphic classification of coastal systems – unconsolidated coastal materials, consolidated coastal components.

**Unit II**

Physical basis of coastal environment – tides, tidal range, tidal currents, effects of tides on tidal flats, physical basis of wave movement, effects of waves, surf, Tsunamis.

**Unit III**

Processes in coastal ecosystem : bars, beach drift and beach forms, Abrasion Platforms and cliffs, estuaries meandering.

**Unit IV**

Coastal types (structurally controlled), coral reefs, seagrasses, mangroves, swamps, salt marshes, coastal islands, forms, types and processes.

**Unit V**

Coastal ecosystem impacts : Climate and glacial impact, global change factor, man-induced – changes in coastal geomorphology, Impact of Development projects coastal ecosystems, protection of Marine Biosphere resources, coastal mining and sediment movements.

**Reference:**

1. Ahnert, F.1998 Introduction to Geomorphology Arnold Publisher, London, 352 pp.
2. Oldale, R.1980 A geologic history of carp cod, U.S. Geological Survey, Washington, D.C.
3. Reed Wicander & James S.Monroe, 1999 Essentials of Geology Wadsworth Publishing Company, Tokyo 447 pp.
4. Sent, P.K. and Prasad, N.2002 Introduction to Geomorphology of India. Allied publishers private limited Mumbai 378 pp.