

ELECTIVE COURSE IV – MARINE BIOTECHNOLOGY

UNIT I

Marine Ecosystem : Characters of Marine habitat, classification of Marine habitat.

UNIT II

Importance of Marine biological diversity : species, ecosystem, genetic biodiversity.

UNIT III

Identification of Marine bioactive compounds containing organisms : Mangroves, sea weeds, sea grasses, sponges, mollusks, Echinoderms – associated microbes.

UNIT IV

Anticancer – antiviral – antibacterial – antifungal compounds, Biopesticides, herbicides from Marine Microbes.

UNIT V

Marine conservation : Factors creating diversity in the sea; area of diversity, area to be protected, risk factors for population and species.

REFERENCE:

1. Pharmaceutical and the sea (1988) Carles W. Jerffored, Kenneth L.Rinehart.
2. Recent advances in Marine Biotechnology, M.Fingermann, R.Nagabushanam and Mary Frances Thompson.
3. Trends in Marine Biotechnology Dr.S.Lazarus and Dr.S.G.Prakash Vincent.
4. Nutrients and Bioactive substances and aquatic organisms – K.Devadasan and M.K.Mukundan.