

SECOND YEAR T. D.C.SCIENCE, 2018-19

ENVIRONMENTAL SCIENCES

PAPER-III

TERRESTRIAL ECOLOGY

Duration: 3 Hrs.

M.M.:50

UNIT-I

Physico-chemical characteristics of terrestrial ecosystem, Grassland ecosystem – Grassland environment; food chain and trophic levels, energetics of grasslands, productivity of grassland, biogeochemical cycles operating in grasslands; grass legume association; Grasslands in relation to soil and water conservation.

UNIT-II

Basis of grassland classification, Major grassland types in the world, grasslands in India with special reference to Rajasthan; Range management.

UNIT-III

Forest ecosystem – Major forest types of the world and of India; forest ecosystem, forest environment, food chains, energetics and biogeochemical cycles operating in forests. Forest biota.

UNIT-IV

Desert ecosystem – Introduction to world deserts, causes of desertification and control, climate of desert; Ecological adaptations to desert in plants and animals.

UNIT-V

Flora and fauna of Indian desert, Dryland farming, sylvipastoral agro forestry, solar energy utilization, arid horticulture and resource management activities with special reference to Rajasthan. Aims and activities of CAZRI, Desert Development Board and Arid- Forestry Research Institute (AFRI).