

BES –C-702 **Climate change and its implication**

Unit – 1

Climate Change: Definition, scope and facts of climate change. Origin and evolution of the earth's atmosphere. Weather and climate. Introduction to the effects of various anthropogenic activities on earth's atmosphere.

Unit - 2

Monsoons – Definition, Indian monsoons – seasons: Cold weather season (Winter), the hot weather season (Summer), season of advancing monsoon (The rainy season) and season of retreating monsoon (The transition season). Cyclones of the Indian region; El-Niño, La Nina and their impacts.

Unit - 3

Greenhouse effect and global warming: Definition, impacts, major greenhouse gases, sources and sinks of greenhouse gases; Urban Heat Islands; Ozone layer depletion and recovery, issues and remedies; ground-level ozone and air pollution; global dimming. Carbon footprint.

Unit - 4

Impacts of global climate change: Increased surface mean temperature, insect outbreaks, loss of biodiversity and extinction of species, sea-level rise. Climate change and food security.

Unit - 5

Climate change and policy frameworks – History of international climate change policies. UNFCCC, IPCC, MoEF&CC, NAPCC, The Kyoto protocol, Paris agreement. Evolution of climate change negotiations.