

**MODEL C B C S SYLLABUS**  
**ABILITY ENHANCEMENT COMPULSORY COURSE (AECC-1)**

**ENVIRONMENTAL STUDIES AND  
DISASTER MANAGEMENT**

**Full Marks : 100**

**Unit - I**

**ENVIRONMENT**

**(13 Periods x 45 min)**

**The Environment :** The Atmosphere, Lithosphere, Hydrosphere, Biosphere

**Ecosystem :** Energy flow in the ecosystem

**Biogeochemical Cycle :** Water Cycle, Carbon Cycle, Nitrogen Cycle

**Pollution :** Water Pollution, Air Pollution, Soil Pollution, Radiation Pollution, Industrial Pollution, Light Pollution, Sound Pollution

**Environmental Laws :** Water Act 1974, Air Act 1981, The Wildlife Protection Act 1972, The Environment Protection Act, 1986, The Forest Conservation Act 1980.

**Unit - II**

**CLIMATE CHANGE AND SUSTAINABLE DEVELOPMENT (13 Periods x 45 min)**

**Population Ecology :** Individuals, Species, Population, Community

Human Population Growth, Population Control Methods, Urbanization and its effects on Society

**Climate Change :** Causes, Effects, Global Warming, Carbon footprint and Environmental Protection

**Steps taken towards Sustainable Development :** Ban of single-use plastics, Automobile Scrapping Policy, Promotion of Electrical Vehicles

**Brief idea on Sustainable Development Goals (SDGs) :** Agenda 21 of Rio Earth Summit

**Unit - III**

**DISASTER MANAGEMENT**

**(13 Periods x 45 min)**

**Disaster Management :**

Types of disasters (Natural and Man-made) and their causes and effects

**Vulnerability Assessment and Risk Analysis :** Vulnerability to various disasters : Flood, Cyclone, Earthquake, Heat waves and Lightning

**Institutional Framework :** Institutional arrangements for disaster management, National Disaster Management Authority (NDMA), State Disaster Management Authority (SDMA), District Disaster Management Authority (DDMA), National Disaster Response Force (NDRF) and Odisha Disaster Rapid Action Force (ODRAF)

**Prepared Measures :** Disaster Management Cycle, Early Warning System, Pre-Disaster and Post-Disaster Preparedness, Strengthening of NDMA and DDMA, Community Preparedness, Stakeholder participation, Corporate Social Responsibility (CSR)

**Survival Skills :** Survival skills adopted during and after disaster (Flood, Fire, Earthquake, Cyclone and Lightning)

## Unit - IV

### PUBLIC HEALTH MANAGEMENT:

(13 Periods x 45 min)

#### Brief idea on Epidemics and Pandemics

**Non-communicable diseases** with special reference to Cardiovascular diseases, Cancer, Diabetes, Hypertension and Obesity and their prevention

**Communicable diseases** with special reference to Covid-19, Flu, Hepatitis, AIDS and Tuberculosis and their transmission

**Dynamics of disease Transmission :** Mode of transmission (Direct/Indirect), Events after infection, Immunity (Active vrs Passive, Innate vrs Acquired, Herd Immunity), Incubation Period

**Prevention of Epidemics/Pandemics Diseases :** Preventing Measures : (Quarantine, Sanitization, Personal Protective measures such as Hand washing and use of protective devices, Vaccination); Control Measures : Surveillance, Isolation, Contact Tracing

**Life Style Management :** (Diet, Physical Exercise, Yoga and Sleeping habit)

**Role of Different Sectors in Managing Health Disaster :** Role of Government (Centre and State), Community, Civil Society, Student Mass, NGOs

### QUESTION PATTERN

Full marks : 100

Time : 3 Hours

Mid-semester/Internal : 20 marks

End-semester : 80 marks

Part I : Objective Questions :

A. Fill in the blanks

$1 \times 12 = 12$

B. One word answer

Part II : Answer in two or three sentences

Answer any 8 questions (out of 10)

$2 \times 8 = 16$

Part III : Answer in 75 words

Answer any 8 questions (out of 10)

$3 \times 8 = 24$

Part IV : Answer in 500 words

Answer any 4 questions (either/or)

$7 \times 4 = 28$

Total : 80