

**SEMESTER - IV**

**CPS 5e ENVIRONMENTAL EDUCATION**

**Credits: 4**

**Internal: 40 marks**

**Hours/Week: Theory-4hrs Practical 4 hrs**

**External: 60 marks**

**Total: 100 marks**

**Course Learning Outcomes:**

**At the end of the course, the student-teachers will be able to**

- construct the objectives, scope and nature of Environmental Education;
- perceive the causes and remedies for environmental hazards and pollution;
- analyze the causes and control measures for environmental degradation;
- prioritize the need for inclusion of Environmental Education in the school curriculum;
- apply the knowledge of environmental policies and issues in India; and
- predict the various types of disasters and identify the control measures.

**Unit I: Objectives, Scope and Nature of Environmental Education**

Meaning – Definition - Concept and Objectives of Environmental Education- Need and Significance of Environmental Education- Scope and guiding Principles of Environmental Education.

**Unit II: Environmental Hazards and Pollution**

Pollution: Meaning, Definition-Causes, Effects and Control Measures of Air ,Water, Soil, Marine, Noise hazards - Solid waste management: Causes, effects and control measures- Warfare: Nuclear, Thermal, Chemical and Bio.

**Unit III: Natural Resources and Associated Problems**

Forest Resources: Use and Over - Exploitation, Deforestation, Timber extraction – Mining - Dams and their effects on forests and people.

Water Resources: Use and over –utilization of surface and ground water, water disputes.

Mineral Resources: Use and exploitation, environmental effects of extracting and using Mineral Resources.

Food Resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer- pesticide problems, water logging.

Land Resources: soil erosion, conversion of wet land into dry land-Equitable use of resources for sustainable lifestyles.

#### **Unit IV: Environmental Education in the School Curriculum**

Environmental Education at Primary , Secondary and Higher Education level-Programmes- Field trips ,workshops ,exhibitions, videos, nature clubs and nature walks- Celebrations – Earth Day, Environmental Day, World Water Day, World Food Day-Global Warming- Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources, hygiene and sanitation programmes, Eco-friendly behaviour inside and outside the school campus, organic farming, clean and green campus programme-Role of a teacher at different levels of programme.

#### **Unit V: Environmental Issues and Policies**

Major environmental problems in India- - Environmental Protection and Policies in India - Threat to Bio-diversity: Habitat loss, Poaching of wild life, Endangered and Endemic species of India-Measures taken in India- Role of Green Tribunals in environment issues.

#### **Unit VI: Disaster Management**

Natural and Man-made Disasters- Disaster cycle- Natural disasters: Floods, Earthquake, Drought, Cyclone, Landslides, Tsunami, their causes, effects and control measures.

Man-made disasters: building collapse, bridge collapse, train accidents, bomb blasts, their causes, effects and control measures.

#### **Suggested References:**

Aber J.L. Brown., J.L.A. Henrich C.C (1999) Teaching conflict resolution an effective Venkataiah, N. (1998). Value Education. New Delhi: Aph Publishing Corporation.

Adans, D. (Ed). (1997). UNESCO and a culture of peace, promoting a global movement. Paris: UNESCO

Publication.

Adams, D. (Ed) UNESCO and a culture of peace, promoting a Global Movement Paris UNESCO 1997  
Central Board of Secondary Education – Value Education: A Hand Book for teachers (1997)

Aggarwal, J.C.(2005). Education for values, environment and human rights. New Delhi: Shipra publication.

Babu Muthuja ., Usharani, R & Arun, R.K (2009) Peace and Value Education, New Delhi :Centrum Press.

Balasooriya, A.S.(2001) .A teacher's guide to Peace Education .New Delhi :UNESCO Publication.

Balvinder Kaur (2006) Peace Education New Delhi: Deep& Deep Publications.

Bharathi Kumar (2012) ,A Text Book of Environmental Education Wisdom Press

C.P.R.Environmental Education Centre, Environmental Studies for Undergraduate Students, University of Madras

Chanda.S.K. Environmental Degradation in India, Vinod Publication and Distributors, Pucca Douga, Jammu

Digumarti bhaskara Rao & Suneetha.G. (2007), Environmental Awareness of School Student: Sonali Publication ,New Delhi

Kelu, P. (2000). Environmental education: A conceptual analysis. Calicut: Calicut University.

Kelu.P.(2000) Environmental Education: A Conceptual Analysis

Kochhar.S.K. Teaching of Social Studies (1984) Sterling Publishers Pvt Ltd, New Delhi

Krishnamachariyalu .V. and Reddy.G.S. (2009) Environmental Education Neelkamal Publication Pvt Ltd.

Kumar .A.(2009) A Text Book of Environmental Science APH Publishing Corporation, New Delhi

Kumar, A. (2009). A text book of environmental science. New Delhi: APH Publishing Corporation.

P. K., & Reddy, N. D. (2001). Environmental Education. Hyderabad: Neelkamal publications.

Sharma .B.L. and Maheshwari.B.K. (2008) Education for Environmental and Human Values R.Lall Books Depot, Meerut

Sharma, B. L., & Maheswari, B. K. (2008). Education for Environmental and Human value. Meerut: R.Lall Books Depot.

Sharma, R. A. (2008). Environmental Education. Meerut: R.Lall Books Depot.

Sharma, V. S. (2005). Environmental education. New Delhi: Anmol publication. Reddy,

Shukla, R.P. (2004). Value education and human rights. New Delhi: Sarup and sons.

Singh .Y.K. (2009) Teaching of Environmental Science APH Publishing Corporation, New Delhi

Singh,Y. K. (2009). Teaching of environmental science. New Delhi: APH Publishing Corporation.

Subramanian, K. (1990). Value Education. Madurai: Revana Publication Murthy S.K.Essentials of Higher Secondary Education, Ludhinana, Prakash Brothers.

பரமேஸ்பரி, உமா மகேஸ்வரி மா. (2010). சுற்றுச்சூழல் கல்வி. திருவல்லிக்கேணி, சென்னை, ஸ்ரீ கோமதி பதிப்பகம்.

நாகராஜன் கி. வேணுகோபால் கோ. (2009). சுற்றுச்சூழல் கல்வி. சென்னை இராம் பதிப்பகம்.

உமாமகேஸ்வரி.மா. டாக்டர் பாலாஜி லோகநாதன். (2009). சுற்றுச்சூழல் கல்வி. சென்னை: ஸ்ரீ ஜி.வி. பதிப்பகம்.

மோகனா, ஸ்ரீ மகாலக்ஷ்மி, டாக்டர் ஸ்ரீ பாலாஜி லோகநாதன். (2009). கல்வியில் சுற்றுச்சூழல் இயல். சென்னை. ஸ்ரீ ஜி.வி. பதிப்பகம்.

ராஜம்மாள். (2009). உயிரியல் சுற்றுச்சூழல். சென்னை.

நாகராஜன் கி., நித்யஸ்ரீ என். (2014). சுற்றுச்சூழல் கல்வி. சென்னை: ஸ்ரீராம் பதிப்பகம்.

மீனாகுமார் ஏ.பி.எம். (2011). சுற்றுச்சூழல் கல்வி. நில்கமல் பதிப்பகம்: ஹைதராபாத்.

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