

## CLIMATE CHANGE ASSESSMENT AND MITIGATION MEASURES

**Paper Code: ETEN-416**

**Paper: Climate Change Assessment and Mitigation Measures**

<b>L</b>	<b>T/P</b>	<b>C</b>
<b>3</b>	<b>1</b>	<b>4</b>

### **INSTRUCTIONS TO PAPER SETTERS:**

**MAXIMUM MARKS: 75**

1. Question No. 1 should be compulsory and cover the entire syllabus. This question should have objective or short answer type questions. It should be of 25 marks.
2. Apart from Question No. 1, rest of the paper shall consist of four units as per the syllabus. Every unit should have two questions. However, student may be asked to attempt only 1 question from each unit. Each question should be of 12.5 marks.

*Objective: After successful completion of this course students are expected to be able to:*

1. *Demonstrate an understanding of how the threats and opportunities of predicted climate change will influence specific sectors at global and regional scale;*
2. *Critically evaluate the relative opportunities and needs for mitigation and adaptation (including vulnerability assessments) in a variety of sectoral contexts;*
3. *Understand and critically evaluate the scientific insights underlying the assessment reports of the IPCC, with a focus on impacts, adaptation and mitigation.*

### **UNIT – I**

Introduction: Resource management, Carrying Capacity, Green house gas emission- sources, control, trends, projections, Carbon sequestration, Causes and impacts of Climate change, Negotiations of UNFCCC, Kyoto Protocol, Montreal Protocol, Climate change conventions, Climate Policy Analysis- costs of inaction and costs of action, Clean Air Act, Market based Policies- cap and trade mechanism.

[T1, T2][No. of Hours: 11]

### **UNIT – II**

Climate Change Problem. International response to climate change- Emergence of Climate change regime, Berlin Mandate, Post Kyoto era. Regime Participants-Parties, NGOs, International Organizations, UN bodies and specialized agencies. Principles- Common Concern of Humankind, Principle 21 of Stockholm Conference and Principle 2 of Rio Declaration, Common but Differentiated responsibilities, Precautionary Principle, Right to sustainable Development.

[T1, T2][No. of Hours: 12]

### **UNIT – III**

Mitigation Commitments- Annex I Parties, Kyoto quantified emission limitation or reduction commitments, calculating assigned amount, use of Kyoto Flexibility Mechanisms.  
CDM- Eligibility criteria for projects, project cycle, institutions and Procedures, monitoring and certification, issuance of CERs.  
Joint Implementation- Institutions, Participation/ eligibility, Track 1 and Track 2 Procedure, small scale and nuclear projects.

[T1, T2][No. of Hours: 12]

### **UNIT – IV**

IPCC- role, procedures, assessment process. Transport policies for climate change. Adaptation: National programs and Adaptation measures, planning and integration, adaptation financing. Mitigation measures in Developed and Developing countries.

[T1, T2][No. of Hours: 11]

### **Text Books:**

- [T1] Yamin F. and Depledge J., “The International Climate Change Regime- a Guide to Rules, Institutions and Procedures”, Cambridge University Press, New York.
- [T2] Luterbacher U. and Spriz D.F., “International Relations and Global Climate Change”, Massachusetts Institute of Technology, USA.

### **Reference Books:**

- [R1] Davoudi S., Crawford J., Mehmood A., “Planning for Climate Change”, Earthscan, London.
- [R2] Mann M.E., Kump L.R., “Dire Predictions: Understanding Global Warming”, Dorling Kindersley Publishing, London.
- [R3] Posner E.A., Weisbach D., “Climate Change Justice”, Princeton University Press, New Jersey.