



THE OPEN UNIVERSITY OF SRI LANKA

POST GRADUATE DIPLOMA IN ENVIRONMENT SCIENCE LEVEL 7

NRP-2207 CLIMATE CHANGE

FINAL EXAMINATION - 2007

DURATION – (3) THREE HOURS

Date 23rd November, 2007

Time 9.30 am to 12.30pm

ANSWER ANY FOUR (4) QUESTIONS

1.
 - i. Explain how the temperature in the lower atmosphere is decreasing with height.
 - ii. Explain the atmospheric temperature profile of the earth with a diagram.
 - iii. Explain following terms
 - a. Weather b. Climate c. Climate Change

2.
 - i. Explain Natural and Enhanced Greenhouse effect.
 - ii. What are the main six Natural and Industrial greenhouse gases ?
 - iii. What would have been the temperature of the earth without the natural greenhouse gases? Give reasons for your answer.
 - iv. What was the global average surface temperature increment during the last century?

3.
 - i. Describe the basic methods available for determining the impacts under different conditions and for different sectors.
 - ii. Describe the impacts of climate change in South Asia as given in IPCC 3rd Assessment Report.



4.
 - i. What is meant by "Mitigation of Climate Change"?
 - ii. Discuss the mitigation options available in any (3) three of the following sectors.
 - a. Energy
 - b. Industry
 - c. Transport
 - d. Agriculture
5.
 - i. Explain the objective and the need for adopting a Convention on climate change.
 - ii. Describe the basic principles underlying the Convention.
6.
 - i. Explain the reasons why nations adopted the Kyoto Protocol on climate change.
 - ii. Explain how the provisions in the Protocol could assist developing countries in achieving sustainable development.
 - iii. Explain what "Clean Development Mechanism" means.