

**FIFTH SEMESTER B ARCH DEGREE EXAMINATION  
(2013 SCHEME)  
13 AR 1504: SUSTAINABLE DEVELOPMENT  
(Model Question paper)**

**Time : 3 Hours**

**Marks :100**

**Instructions :** 1) Answer ALL Questions  
2) Illustrations in answers are important

**1. Write short notes on the following**

- a) Kyoto Protocol
- b) Human Development Index
- c) Embodied Energy
- d) Ecological Footprint
- e) Xeriscaping
- f) Environmental impacts of Industries
- g) Compost
- h) Air Pollution

(8 x 5= 40 marks)

**2.**

- a) Define Global warming and state the reasons. Describe the major impacts and responses to Global Warming (15 marks)

**OR**

- a) Explain the formation of Brundtland Commission and the terms and references for the Commission. State and describe the major sections of Brundtland Commission report. (15 marks)

**3.**

- a) Describe the major components of Sustainable Architecture and discuss on the major aspects of Sustainable site planning. (15 marks)

**OR**

- b) Discuss in detail the major objectives and fundamental principles in Green building concept and describe any one Global Green rating system. (15 marks)

**4.**

- a) Discuss different methods of Rain water harvesting systems. With a neat sketch explain a domestic water harvesting system with all the necessary components (15 marks)

**OR**

- b) Explain major systems of Water recycling and list the various uses of recycled water. (15 marks)

**5.**

**a)** Define Waste Management. Explain various systems of waste management and methods of disposal. (15 marks)

**OR**

**b)** What are the major processes of Recycling of used materials in to new products? Explain on five major types of recyclables in building construction. (15 marks)