

ISLAMIC UNIVERSITY OF TECHNOLOGY (IUT)
ORGANISATION OF ISLAMIC COOPERATION (OIC)
DEPARTMENT OF TECHNICAL AND VOCATIONAL EDUCATION (TVE)

Mid Semester Examination

Course No: Hum 4149

Course Title: Technology, Environment and Society

Winter Semester (2014-2015)

Time : 90 minutes

Full Marks : 75

There are 4 (four) questions. Answer any 3 (three).
Figures in the right margin indicate marks of the questions.

1.
 - a) What is an ecosystem? What are the biotic and abiotic factors of an ecosystem? 5
 - b) Draw and explain the flow of energy and materials in an ecosystem. 10
 - c) Explain the maximum carrying capacity of an ecosystem depending on availability of food. Draw necessary diagrams to support your statement. 10
2.
 - a) Explain the terms "sustainable development" and relate how the social, economic and ecological interests are involved with this term are. 10
 - b) Explain the term "environmental justice" with example. 5
 - c) Briefly discuss the reasons of "Loss of Biodiversity" on this earth. 10
3.
 - a) What are the four layers of atmosphere? Draw a curve of atmospheric profile of temperature. 10
 - b) Why does the temperature decrease with the altitude in Troposphere of our atmosphere? 10
 - c) What is acid rain? Mention the impacts of acid rain on forest. 5
4.
 - a) What is air pollution? Describe the categories of air pollutants with appropriate example. 10
 - b) Describe the sources and impacts of Volatile Organic Compounds (VOCs) as air pollutant. 5
 - c) Following diagram shows the concentration of carbon dioxide in atmosphere in a time span of 50 years (1960-2010). Explain the diagram and the reasons for fluctuation of the curve in a single year. ("ppmv" stands for parts per million volume) 10

