

Program: BSc (Eng.) ME 4th Semester
Semester: Summer

Date: 16th February, 2023
Time: 10:00 am – 11:30 am

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

Exam: Mid-Semester Examination
Course Number: HUM 4417
Course Title: Sustainability in Technology, Environment, and Society.

Academic Year: 2021 - 2022
Full Marks: 75
Duration: 90 minutes

Answer ALL questions. The symbols have their usual meaning.

1.
 - a) What is an ecosystem? Explain the flow of energy in an ecosystem. (05) CO1 PO1,
 - b) Write a short note on Earth System and Global Atmospheric Change. (10) PO7
 - c) Define the term sustainable development. How does the idea of sustainable resource use contribute to the ecological balance? (10)

2.
 - a) What are Green House Gases? How are they responsible for trapping heat in the atmosphere of Earth? Explain with the necessary diagrams. (10) CO2 PO7
 - b) What are the benefits of Carbon Sequestration? (05)
 - c) Differentiate between Weather and Climate. How does acid rain form and impact the environment? (10)

3.
 - a) What is an ozone hole? Explain the process of ozone layer depletion with chemical reactions. Mention the impacts of ozone layer depletion on Human Health and Ecology. (15) CO2 PO7
 - b) Explain the Hydrological cycle with a necessary illustration. (05)
 - c) What is Air pollution? Mention the major air pollutants with examples. (05)