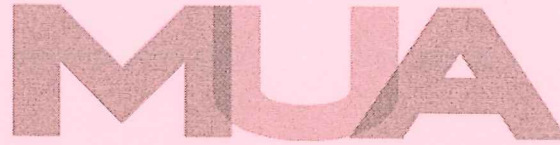


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UNDERGRADUATE UNIVERSITY EXAMINATIONS

SCHOOL OF MANAGEMENT AND LEADERSHIP

DEGREE OF BACHELOR OF ARTS IN DEVELOPMENT STUDIES / BACHELOR  
OF COMMERCE

BDS 211/UCU 108 : ENVIRONMENT AND DEVELOPMENT/  
ENVIRONMENTAL SCIENCE

DATE: 8<sup>TH</sup> AUGUST 2023

DURATION: 2 HOURS

MAXIMUM MARKS: 70

INSTRUCTIONS:

1. Write your registration number on the answer booklet.
2. DO NOT write on this question paper.
3. This paper contains SIX (6) questions.
4. Question ONE is compulsory.
5. Answer any other THREE questions.
6. Question ONE carries 25 MARKS and the rest carry 15 MARKS each.
7. Write all your answers in the Examination answer booklet provided.

## QUESTION ONE

Read the Case Study below carefully and, answer the questions that follow:

### GLOBAL WARMING

Some of the current issues related to environment are global warming and depletion of natural resources. Global warming refers to the permanent climate change of the earth owing to industrial pollution, degradation of the environment, greenhouse gas emission, depletion of the ozone layer which means a decline in the total amount of ozone on earth's stratosphere. Scientists have proven that the temperature of the earth is increasing and if necessary precautions are not being taken, the situation will be worse which will cause further negative impact on the environment and human health.

Depletion of natural resources is another major concern. With the overpopulation, the consumption of earth's natural resources is taking place at a faster rate even before they could be replenished. Global warming leads to the low rate of production of agricultural products and with depletion of natural resources adding to it, very soon the mass population of earth will face not only a shortage of food but also shortage of resources to carry out any development process.

In order to overcome the shortage, chemicals are used to increase the production of agricultural products. This not only decreases the value of soil, but also affects human health in a negative way. If the process continues, the inhabitants of the earth are going to face serious issues. In all these years, plenty of damages have been caused to earth's environment and its resources. If necessary activities and measures are taken to protect the environment, there is hope that much worse condition could be postponed if not totally avoided.

In order to reduce global warming, protection of forests and wetlands are important. Trees should not be cut until and unless they are absolutely necessary. In such cases, it is required to plant as many trees wherever possible. A single step taken by a huge part of the population can play a major role in protecting the environment. It is also important to conserve natural resources, biodiversity, and wildlife. Apart from that, every inhabitant of the earth should play their part in preventing ozone layer from depletion.

The main ozone-depleting substances are widely used in refrigerators, air conditioners and fire extinguishers. Many refrigerators and air conditioners use Hydrochlorofluorocarbon (HCFC) and Chlorofluorocarbon (CFC) as a refrigerant. These are important elements in causing depletion to the earth's ozone layer.

It is hence important to not use products that use HCFC and CFC as refrigerants. It is also advisable to avoid using aerosol products that use HCFCs and CFCs as propellants. Apart from all these above-mentioned measures, precaution should be taken to emit less carbon to the environment. <https://www.indiacelebrating.com/>

**Required:**

- a) Based on the above critical evidence of possible destruction of the earth's ozone layer, state and explain the five (5) basic principles for sustainable development that will help reverse the damages (10 Marks)
- b) Biodiversity and ecosystems are already more stressed than at any comparable period of human history. Discuss (5 Marks)
- c) There is increasing evidence of population declines and localized extinctions that can be directly attributed to climate change. Discuss (5Marks)
- d) Ecosystem is a community of different species interacting with one another, what are the principles that enable ecosystems be self-sufficient (5 Marks)

**QUESTION TWO**

- a) The environment is our life support system. It includes everything that we rely on during our lifetime such as air, water, metals, soil, rock and other living organisms. It is important to remember that the state of our environment is influenced by our behaviour and that we have the opportunity to either nurture or mistreat it. Explain five (5) Environmental issues of global concern being addressed to date (5 Marks)
- b) Explain five (5) reasons why we should conserve our forests ecosystem (5 Marks)
- c) The poor are capable of investing in environmental improvement: citing relevant examples, discuss community based natural resource management concept (5 Marks)

**QUESTION THREE**

- a) The Critical Triangle of Development enables visualization of sustainable development with three Es. Briefly illustrate their interaction diagrammatically (5Marks)
- b) Rural-urban migration has caused poor building and construction planning to meet demand for housing. Discuss (4) challenges in relation to environment and Development as a unit of study (6 Marks)
- c) Demonstrate the measures taken to address any four (4) Basic Principles of Sustainable Development in your country (4Marks)

**QUESTION FOUR**

- a) The dimensions of Development are many .Briefly describe the Social and Human development for sustainability. (3 Marks)
- b) Describe six (6) Key links between the environment and the Millennium Development Goals (9 Marks)
- c) Environmental change has resulted due to various types of Pollution in the world, explain one key pollutant for each type (3 Marks)

**QUESTION FIVE**

- a) Sub-Sahara Africa is facing numerous Challenges to Sustainable Development address. Discuss any four (4) (6 Marks)
- b) Evaluate five factors that lead to degradation of forests (5 Marks)
- c) Natural resource management approaches can be categorized according to the kind and right of Stakeholders Ownership Regimes. Compare and contrast State property regime with common property regime. (4 Marks)

**QUESTION SIX**

- a) Highlight five various sources of Greenhouse gases (5 Marks)

- b) Population Dynamics Matters for Sustainable Development and no question about it, explain with at least four points (6 Marks)
- c) Highlight four areas in which climate change has manifested in Kenya today. (4Marks)

