



ZCAS University

SMS 2942 ENVIRONMENTAL MANAGEMENT

MID SEMESTER EXAMINATION

OCTOBER 2023

DATE: 25 OCTOBER

TIME: 12:30 HOURS TO 15:30 HOURS

TIME ALLOWED: THREE HOURS (plus 5 minutes to read through the paper)

INSTRUCTIONS:

1. Section A: this question is **compulsory** and must be attempted.
2. Sections B: Answer Three (3) questions from this section.
3. This question paper carries a total of **100 marks**.
4. Candidates must **not turn this page** until the invigilator tells them to do so.

SECTION A: Question 1 is compulsory and must be attempted

QUESTION 1.(THE CASE OF DEFORESTATION IN AFRICA)

Large-scale exploitation of African forests went hand-in-hand with European colonization in the late 19th and early 20th centuries, when natural resources like timber, ebony and ivory began to be harvested and exported at unprecedented scales. Throughout the 20th century, colonial powers granted themselves or private companies large swathes of forested lands in the form of concessions, with the rights to exploit natural resources in exchange for a share of the profits (and/or various obligations to govern and ‘develop’ the area). In many cases, this meant eliminating the original forests for commercial crops, such as cocoa, coffee, palm oil, rubber and tea.

During the 1960s, as many African nations won independence, governments often maintained the concession model, passing on contracts to the same private companies or similar new ones. The objectives of those concessions varied in line with the chosen ‘development’ model. Some such models actively promoted deforestation. Côte d’Ivoire, for example, lost 80 per cent of its forests between 1900 and 2021, as it aimed to become the world’s largest cocoa producer. Ghana followed a similar path.

Meanwhile, in the 1970s and 1980s, Kenya had so many sawmills that the activity was proudly displayed on its postal stamps. Only a handful of small sawmills exist in Kenya today, however, and the country’s new constitution aims to bring national forest cover back to a minimum of 10 per cent from almost complete destruction.

Required:

- i) Briefly define the term Deforestation (5marks)
- ii) Discuss, with use of examples, Any **FIVE** factors that cause deforestation (15marks)
- iii) State at least **FOUR** measures that can be implemented by the government to curb deforestation (15marks)
- iv) Provide an analysis of how you would sensitize your community on the dangers of deforestation, case in point being the business of selling charcoal. (5marks)

(Total 40marks)

SECTION B: Attempt any THREE questions in this section

QUESTION 2.

Write brief notes on the following:

- i) Ecology (5marks)
- ii) Environment (5marks)
- iii) Deforestation (5marks)
- iv) Abiotic components (5marks)

(Total 20marks)

QUESTION 3.

An ecosystem consists of all the organisms and the physical environment with which they interact. These biotic and abiotic components are linked together through nutrient cycles and energy flows. Energy enters the system through photosynthesis and is incorporated into plant tissue.

- i) Discuss the importance of the ecosystem to mankind and the environment as a whole. (15marks)
- ii) Discuss ways in which the eco system can be sustained. (5marks)

(Total 20marks)

QUESTION 4.

The movement of a person or people from one country, locality, place of residence, etc., to settle in another; an instance of this. Migration is, first and foremost, a normal human activity. Human beings have always moved from 'one country, locality, [and] place of residence to settle in another'. Zambia has experienced a mass exodus of Rural-Urban migration and this has had a huge impact on the status of urban.

- i) Discuss FIVE major causes of Rural Urban migration in Zambia (14 marks).
- ii) Explain with the use of Examples any THREE effects of Rural-Urban migration in Zambia (6 marks).

(Total 20marks)

QUESTION 5.

Widespread improvements in the quality of life of many of the world's populations have gone hand-in-hand with increased demands on natural resources. The planet is struggling to keep up. Increases in the average global temperature, and the frequency of extreme weather events are transforming ecosystems around the world and threatening entire species of plants and animals. Forests are drying up because there is less rainfall and thus more fires, and the glaciers of both the North and South Poles are shrinking. The consequences of climate change affect all of us, but to react and adapt to these challenges, we must first understand them.

- i) Define the term climate change (4marks)
- ii) With the use of practical examples, Discuss any **FOUR** factors that affect climate change (16marks)

(Total 20marks)

END OF EXAMINATION