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**KIRIRI WOMENS' UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**UNIVERSITY EXAMINATION, 2024/2025 ACADEMIC YEAR**  
**THIRD YEAR, FIRST YEAR SEMESTER EXAMINATION**  
**FOR THE DEGREE OF BACHELOR OF SCIENCE**  
**(BUSINESS ADMINISTRATION)**

Date: 8<sup>th</sup> August, 2024  
Time: 2.30pm – 4.30pm

**KLC 2308 ENVIRONMENTAL STUDIES**

**INSTRUCTIONS TO CANDIDATES**

**ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS**

**QUESTION ONE (30 MARKS)**

**WHY GARBAGE COLLECTORS WANT DANDORA DUMPSITE REHABILITATED**

Garbage collectors are asking the courts to intervene following reports of women solid waste packers going for eight months without receiving their periods as a result of the toxic environment within the Dandora Dumpsite. The collectors say others face serious issues when pregnant, among them miscarriages, stillbirths and premature births. In their documents filed before the Environment and Land Court Milimani, the collectors want the Nairobi County Government to implement permanent rehabilitation and restoration of the Dandora dumpsite area measuring about 47 hectares. Also sought is an order compelling the National Environment Management Authority (NEMA) to ring-fence funds that would be used to implement permanent rehabilitation and restoration of the Dandora dumpsite area. Abigael Namayi, Beryl Auma, Phanice Okello, Leah Kayange, and David Ochieng say they have filed the case for themselves and for the 3000 affected members who work as waste packers.

“Despite our critical role in the solid waste management cycle which includes waste collection, segregation, and recycling which we do manually under harsh conditions, the county was not bothered to engage us as key stakeholders in the formulation of an integrated waste management system.” They have decried a lack of protective gear among other things. They claim to have their own empirical data and evidence from their thoroughbred research done in 2011 to prove the state of affairs at the dump site. The data, they say, demonstrates that the conditions at the Dandora dumpsite are inhuman, coupled with toxic chemicals and gasses which are a health hazard. They say they collect garbage with bare hands without protective gloves or gumboots. Some of the materials they pick in the atmosphere billowing with heavy, toxic and choking smoke are plastic bottles, pig food, glass and medical waste, and gunny bags among others. “We have sustained cuts from glass which though catastrophic, are the conditions we have to live with,” they say.

“As a result of being exposed to toxins from burning plastic some of the common ailments that have been established amongst us are neurological impairment, kidney failure, lung and prostate cancer, irritation of the lungs and abnormalities of the skeletal system,” read their documents in part.

**Use above case study to answer the following questions**

- a) Elaborate three main challenges faced by women solid waste packers in Dandora dumpsite. (6 marks)
- b) With reference to the case study, Discuss three critical roles played by Solid Waste Management Cycle. (6 marks)
- c) With reference to case study Discuss three main roles played by Environment and Land Courts in Kenya. (6 mks)
- d) Discuss three roles NEMA and Nairobi County Government should play to ensure safety of garbage collectors. (6 marks)
- e) With reference to case study, Explain three roles of Environment and Land Court in paving way for rehabilitation of Dandora dumpsite. (6 marks)

**QUESTION TWO (20 MARKS)**

- a) Using example distinguish between renewable and non - renewable resources. (6 marks)
- b) Explain four causes and effects of deforestation. (8 marks)
- c) Explain three roles of the government in protecting the environment. (6 marks)

**QUESTION THREE (20 MARKS)**

- a) Identify four environmental natural resources and their economic importance. (8 marks)
- b) Discuss three benefits of marine aquatic environment. (6 marks)
- c) Illustrate three economic importance of soil and rocks. (6 marks)

**QUESTION FOUR (20 MARKS)**

- a) Using relevant examples, explain four effects of human activities on the environment. (8 marks)
- b) Analyze any three types of soil pollution (6 marks)
- c) Explain five importance of environmental studies. (6 marks)

**QUESTION FIVE( 20 MARKS)**

- a) Based on environmental studies, discuss four factors that influence man - animal conflicts in environment. (8 marks)
- b) Elaborate three advantages of modern well made drainage systems in mwihoko town?. (6 marks)
- c) Discuss three factors that make rural environment best for people with respiratory challenges. (6 marks)