



FACULTY	FACULTY OF AGRICULTURE, ENGINEERING AND NATURAL SCIENCES		
DEPARTMENT	ENVIRONMENTAL SCIENCE		
SUBJECT	ENVIRONMENTAL STUDIES		
SUBJECT CODE	GHE 3711		
DATE	June 2022		
DURATION	3 Hours	MARKS	100

SUPPLEMENTARY/SPECIAL EXAMINATION

Examiner : R. Shikangalah (PhD)

Internal Moderator : M. Hipondoka (PhD)

INSTRUCTIONS

1. Present your work as neatly as possible.
2. This paper consists of 3 pages; including cover page.
3. **Answer all the questions.**
4. Use your Examination Answer Book for all the notes you make during your examination.

1. Renewable energy, water pollution & solid and hazardous waste:
Match column A to column B. Write only the answer. Example: 1. Composting. Each point is allocated two marks. 10

Column A	Column B
1. Around 72% of the water pollution in rivers is attributed to _____.	A. Agriculture B. Composting
2. Pollution that is discharged into the environment through pipes, sewers, or ditches is called _____.	C. Increased reuse of products
3. One of the problems associated with sanitary landfills is _____.	D. Point source pollution E. The possibility of a methane gas explosion
4. Organic waste can be converted into valuable soil conditioners through the process of _____.	
5. _____ is identified one of the goals of waste prevention.	

2. Pesticide management:
- a. What are two major benefits of using pesticides? 4
 - b. If pesticide use were discontinued, what pesticide alternatives or compromises would be needed to maintain these benefits? 4
3. Water resource:
Discuss the role of individuals in water conservation.
- a. What actions can you take to conserve water? 6
 - b. Name 2 obstacles to the above actions. 2
4. Fossil fuel:
- a. Which two of the fossil fuel are often deposited together? 2
 - b. Explain how the three different types of fossil fuels were formed. 6
5. Human health, air pollution and climate change:
- a. Discuss the major health effects of air pollution on adults. 4
 - b. Discuss the major health effects of air pollution on children 4
6. Ecosystem, living organisms, and land resources:
- a. Discuss four ways in which forest trees are currently harvested. 16
 - b. Briefly explain which method is the most ecologically sound. 2
7. Biological resources and food resources:
- a. What was the green revolution? 2
 - b. Explain one major advantage associated with this revolution in agriculture. 2
 - c. Explain one disadvantage associated with this revolution in agriculture. 2

- d. What improvements will be needed to improve agricultural productivity for the future? 4
 - e. Explain four environmental impacts of agriculture. 10
8. Human population, urban environment and toward sustainability:
- a. Discuss the environmental problems associated with urban areas. Include in your discussion: 20
 - i. How urban areas have affected land-use patterns and destroyed wildlife habitat.
 - ii. The impact of the buildup of local heat in areas of high population density.