



JULIUS NYERERE SCHOOL OF SOCIAL SCIENCES

DEPARTMENT OF RURAL AND URBAN DEVELOPMENT

BACHELOR OF SCIENCE HONOURS DEGREE IN URBAN AND REGIONAL PLANNING

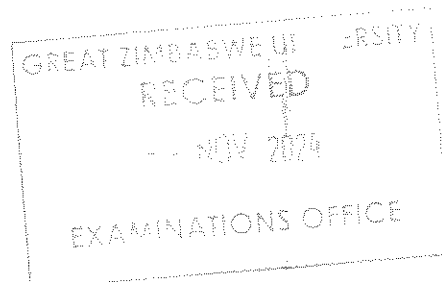
LEVEL 2 SEMESTER 2

EXAMINATION PAPER

MODULE CODE	RUPH 223
MODULE NARRATION	URBAN WATER SUPPLY AND SANITATION
DATE	2024
DURATION	2 HOURS

INSTRUCTIONS TO CANDIDATES:

- 1. Answer any three questions.**
- 2. Each question carries 25 marks.**



1. With aid of diagram/s, describe the five (5) steps often used in the large-scale treatment of urban water.
 - a) Aeration [5 marks]
 - b) Coagulation and flocculation [5 marks]
 - c) Sedimentation [5 marks]
 - d) Filtration [5 marks]
 - e) Chlorination [5 marks]
2. Discuss the importance of Sustainable Development Goal on universal and equitable access to safe and affordable drinking water for all, using the case of water management in Zimbabwe.
3. With reference to different methodologies and technologies, discuss the role of rain and surface water harvesting in addressing the issue of potable water and sustainable agriculture in Zimbabwe.
4. Discuss at least two primary innovative solutions to physical water scarcity challenges relevant to Zimbabwe.
5. Evaluate the effectiveness of the five (5) waste disposal methods below:
 - a) Incineration [5 marks]
 - b) Waste Compaction [5 marks]
 - c) Biogas Generation [5 marks]
 - d) Composting [5 marks]
 - e) Vermicomposting [5 marks]

END OF PAPER