



UNIVERSITY OF SWAZILAND
Faculty of Health Science

Department of Environmental Health
Sciences

Main Examination 2010

Title of paper: WATER RESOURCES MANAGEMENT 1

Course code: EHS 580

Time allowed: 2 hours

Marks allocation: 100 Marks

Instructions:

- 1) Read the questions and instructions carefully
- 2) Answer **All** questions
- 3) Each question is weighted 25 marks
- 4) Write neatly and clearly
- 5) Begin each question in a separate sheet of paper

This paper is not to be opened until the invigilator has granted
permission

QUESTION ONE

1. Mention five categories of professionals who are involved or have interest in water resources management and explain their roles. [10 marks]
2. When we speak of integrated water resources management what are the five aspects that need to be considered and why? [10 marks]
3. What does sustainable use of water resources mean? [5 marks]

QUESTION TWO

1. When speaking about dimensions of water resources management, explain five points discussed under each of the following headings:
 - i. Water resources
 - ii. Water users
 - iii. Spatial scales
 - iv. Temporal scales [20 marks]
2. Mention cross-cutting policy issues on decision process in integrated water resources management. [5 marks]

QUESTION THREE

1. What do you understand by closing a cycle in water resources management? Give an example. [5 marks]
2. Give a definition of demand management in water resources management [5 marks]
3. Strategies for water resources management are generally a combination of supply and demand oriented measures. What will be your focus with regards to water resources management under the following scenarios:
 - i. In a situation where both water resources mobilization and demand are high
 - ii. In a situation where demand level is high but the mobilization of water resources is still low
 - iii. In a situation where demand is still low but mobilization of water resources is high
 - iv. In situation where both demand and mobilization level of water resources are low[20 marks]

QUESTION FOUR

1. Explain five factors that influence the choice of supply and demand in water resources management. [10 marks]
2. Mention five points that explain the aim of demand management [5 mark]
3. Explain four factors that contribute to global water shortage. [10 marks]