



**UNIVERSITY OF SWAZILAND**  
Faculty of Health Science

Department of Environmental Health  
Sciences

Main Examination 2011

Title of paper: WATER QUALITY MANAGEMENT II

Course code: EHS 583

Time allowed: 2 HOURS

Marks allocation: 75 Marks

**Instructions:**

- 1) Answer **Three (3)** questions
- 2) Each question is weighted 25 marks
- 3) Write neatly and clearly
- 4) Begin each question in a separate sheet of paper

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

Main Examination: May 2011

EHS 583 II

**Question 1.**

i) Describe Receiving Water Quality Objective (RWQO) approach in developing Pollution Control Standard (PLS) (15)

ii) What are the advantages and disadvantages of a RWQO (10)

**Question 2.**

Discuss the public health impacts of the following pollutants in water

i) Organic Chemicals (10)

ii) Inorganics (15)

**Question 3.**

The use of wastewater for agriculture is a very old practice and land disposal was the first wastewater treatment system.

i) What are the limiting factors for the rate of application for the wastewater (15)

ii) Give and explain two (2) categories of risks associated with the re-use of wastewater for agriculture (10)

**Question 4.**

With regard to the biological, chemical and physical approach adopted, water quality models can be classified as Kinetic, Biocenotic and Ecological.

Describe briefly the characteristics of each model. (25)