



**UNIVERSITY OF SWAZILAND**  
Faculty of Health Science

Department of Environmental Health  
Sciences

Main Examination 2011

Title of paper: WATER TREATMENT II

Course code: EHS 585

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 585 II

**Question 1.**

- A) What are dual-media filters? (5)
- B) What are their advantages and disadvantages? (10)
- C) What is the principal cleaning mechanism in backwashing filters? (10)

**Question 2.**

- A) Describe the characteristics of a good disinfectant. (5)
- B) What factors militate against effective disinfection? (5)
- C) Name three (3) commonly used disinfectants and what are the advantages and disadvantages of each. Which is the most commonly used in Swaziland? (15)

**Question 3.**

Discuss the ozonation kinetics. (25)

**Question 4.**

- A) What do you understand by Ct Concept in Water Treatment? (10)
- B) Briefly describe Ultra-violet Irradiation kinetics. (15)