



UNIVERSITY OF SWAZILAND
Faculty of Health Science

Department of Environmental Health
Sciences

Main Examination 2010

Title of paper: WATER QUALITY MANAGEMENT 1

Course code: EHS 582

Time allowed: 2 hours

Marks allocation: 100 Marks

Instructions:

- 1) Read the questions and instructions carefully
- 2) Answer **ANY FOUR (4)** 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

Main Examination: December 2010

EHS 582 I

Question 1.

Describe the role of local Authorities in the process of Water Quality Management. (25)

Question 2.

“Mercury and its forms, when present in water, may cause severe toxic effects on human health and environment”

Describe how it enters the food chain and what are the health impacts due to mercury poisoning. (25)

Question 3.

Draw a sketch of a Water Resources System and corresponding types of standards and/or regulations that can be applied to manage water quality. Mention corresponding monitoring points as well.

(25)

Question 4.

A) State ten (10) basic rules for successful water quality assessment program. (10)

B) Explain how to choose sampling sites in a Lake or Reservoir. (15)

Question 5.

The so called Vollenweider Model is commonly used for prediction of eutrofication in Lakes and Reservoirs.

A) Describe this model by means of a graph (10)

B) Discuss what assumptions are made in developing this model (15)