



UNIVERSITY OF SWAZILAND
Faculty of Health Sciences

Department of Environmental Health Science

Main Examination 2014

BSc. in Environmental Health Science

Title of paper: WATER QUALITY MANAGEMENT I

Course code: EHM 317

Time allowed: 2 HOURS

Marks allocation: 100 Marks

Instructions:

- 1) Answer **ANY FOUR** questions
- 2) Each question carries 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: December, 2014.

EHM 317 I

Question 1.

Who is primarily responsible for water pollution control? Explain your viewpoint.

- i) The Government (8)
- ii) The Regions (7)
- iii) Or Both (10)

TOTAL 25 MARKS

Question 2.

- i) What are the principal Water Standards under the Water Act 2003 that controls water pollution? (15)
- ii) Which aspects of water pollution may be regulated under each standard (10)

TOTAL 25 MARKS

Question 3.

- i) Discuss the adverse health effects that can be caused by toxic chemical pollutants. (15)
- ii) How does Eutrophication have impact on Water Quality? (10)

TOTAL 25 MARKS

Question 4.

During a hot summer evening sewage accidentally spills from a sewage pipe burst into a river used for domestic purposes by the nearby community. The first report of the incident is made to the local municipality you are working for.

As an Environmental Health Officer, what is the remedy for the situation?

25 MARKS

Question 5.

The Vollenweider Model in Water Quality is commonly used for prediction of Eutrophication in lakes and Reservoirs.

- i) Discuss the assumptions that are made in developing this model. **(15)**
- ii) By means of a diagram describe this model. **(10)**

TOTAL 25 MARKS