



UNIVERSITY OF SWAZILAND
Faculty of Health Science

Department of Environmental Health
Sciences

Supplementary Examination 2007/2008

Title of paper: URBAN WATER TREATMENT TECHNOLOGY

Course code: EHS 213

Time allowed: 2 hours

Marks allocation: 100 Marks

Instructions:

- 1) Read the questions and instructions carefully
- 2) Answer Four questions
- 3) Each question is weighted 25 marks
- 4) Write neatly and clearly

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

Supplementary Examination: July 2008

EHS 213.

QUESTION 1.

List and explain five (5) reasons of importance for Environmental Health Officers to study Water Supply and Sanitation? (25)

QUESTION 2.

a) Why do we need to treat water before it is distributed to the consumers? (10)

b) Water standards are very important in water supply! Support this statement. (15)

QUESTION 3.

a) Aluminium Sulphate is a coagulant used in water treatment. Compare its properties and that of Ferric Chloride, and which one would you recommend and Why? (10)

b) What are the properties of chlorine and what are the advantages over ultra-violet as a disinfectant. (15)

QUESTION 4.

“Activated Carbon is one the chemicals used in a convectional water treatment plant”

Describe in details the properties of this chemical, also state for what purpose is it used for in water treatment and how is it removed from water. (25)

QUESTION 5.

a) Describe filtration as means of water treatment. (10)

b) What is the principal cleaning mechanism in backwashing of filters? (15)