



UNIVERSITY OF SWAZILAND
Faculty of Health Science

Department of Environmental Health
Sciences

Final Examination 2008

Title of paper: RURAL WATER SUPPLY TECHNOLOGY

Course code: EHS 212

Time allowed: 2 hours

Marks allocation: 100 Marks

Instructions:

- 1) Read the questions and instructions carefully
- 2) Answer ALL 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

Main Examination December 2008

EHS 212

QUESTION 1.

- a) Name the main characteristics of water and under each characteristic, at least mention two (2) components of those characteristics. (10)
- b) Detail the public health significance of the components you have mention in (a) in regard to water quality and treatment. (15)

QUESTION 2.

With an aid of a diagram, describe spring protection under the following headings:

- a) Definition of Rock-Fissure spring. (3)
- b) Data necessary before protection is done, and reasons why such data is necessary? (7)
- c) Detail the protection of the spring. (15)

QUESTION 3.

- a) Discuss the advantages and disadvantages of using river water as a communal water supply. (10)
- b) What effects has storage on such water and what other means of purification may be adopted. (15)

QUESTION 4.

You are appointed as an Environmental Health Officer in charge of a rural area (in the Low-veld) with a population of 2 000 inhabitant. A water supply scheme is planned for the area with water from underground.

- a) Give your suggestions on how the construction of the scheme should be organized and carried out. (10)

- b) What steps would you take to ensure its potability and fitness for human consumption ? (5)
- c) What role would each family play to ensure clean domestic water supply to the household? (5)
- d) State two (2) factors likely to contaminate the underground water supplies. (5)