



UNIVERSITY OF SWAZILAND
Faculty of Health Sciences
DEGREE IN ENVIRONMENTAL HEALTH
FINAL EXAMINATION PAPER 2005-6

TITLE OF PAPER : EXCRETA AND SEWAGE MANAGEMENT

COURSE CODE : EHS 204

DURATION : 3 HOURS

MARKS : 100

INSTRUCTIONS : **READ THE QUESTIONS & INSTRUCTIONS CAREFULLY**

: **ANSWER ANY FIVE QUESTIONS**

: **EACH QUESTION CARRIES 20 MARKS.**

: **WRITE NEATLY & CLEARLY**

: **NO PAPER SHOULD BE BROUGHT INTO NOR OUT OF THE EXAMINATION ROOM.**

: **BEGIN EACH QUESTION ON A SEPARATE SHEET OF PAPER.**

DO NOT OPEN THIS QUESTION PAPER UNTIL PERMISSION IS GRANTED BY THE INVIGILATOR.

QUESTION ONE

- (a) With the aid of a sketch, describe all possible ways by which pathogens can be transmitted from human excreta to susceptible human host. (10)
- (b) Give four reasons why emphasis is placed on excreta disposal. (8)
- (c) Differentiate between sullage and sewage (2)

QUESTION TWO

- (a) Give four materials used in drainage pipes. For each material discuss advantages and disadvantages (12)
- (b) The general principles of drainage design system for buildings depend on two key principles. Discuss these two principles (8)

QUESTION THREE

- (a) Jointing pipes used in drainage vary depending on material used. Mention five joints examples giving for each the appropriate material used. (10)
- (b) Why is the understanding of drainage principles important to an Environmental Health Officer? (10)

QUESTION FOUR

- (a) Mention four advantages of the water carried methods of excreta disposal over the privy methods (8)
- (b) Leaking drains in a building is associated with three problems of public health importance. What are they? (12)

QUESTION FIVE

- (a) Describe the three types of drainage systems (12)
- (b) Inspection is one of the key principles in drainage. Discuss this principle and also give the two classes of drainage manholes. (8)

QUESTION SIX

- (a) What advice can you give for drains laid under buildings (8)
- (b) What could interfere with the maintenance of a seal in traps (4)
- (c) Give reasons for drain ventilation (8)