



UNIVERSITY OF SWAZILAND  
Faculty of Health Sciences  
Department of Environmental Health Science

DEGREE IN ENVIRONMENTAL HEALTH SCIENCE

**RE\_SIT EXAMINATION PAPER 2017**

TITLE OF PAPER : COMMUNICABLE DISEASES CONTROL  
COURSE CODE : EHS 220  
DURATION : 2 HOURS  
MARKS : 100

INSTRUCTIONS :

- : READ THE QUESTIONS & INSTRUCTIONS CAREFULLY
- : ANSWER FOUR QUESTIONS
- : **QUESTION ONE IS COMPULSORY**
- : EACH QUESTION **CARRIES 25** MARKS.
- : WRITE NEATLY & CLEARLY
  
- : NO PAPER SHOULD BE BROUGHT INTO 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 1

According to Watson, Gayer and Connolly (2007), most often than not, the relationship between natural disasters and communicable diseases is misunderstood. However, it is known that there are a number of factors which favour the outbreak of communicable diseases during and after natural disasters.

Discuss in depth 5 of the factors that lead to the outbreak of communicable diseases during and after natural disasters. [25]

[25 MARKS]

### QUESTION 2

Communicable diseases do not always develop in the same way in susceptible hosts. Nonetheless, they do follow a pattern otherwise known as the communicable disease cycle. Understanding the unique pace of specific communicable diseases through the cycle helps to identify those individuals that are likely to transmit the disease as well as those at greatest risk of becoming ill or dying within the population.

- a) Discuss the communicable diseases cycle giving appropriate examples for each stage. [20]
- b) Communicable diseases also follow a chain of infection which begins with the causative agent being transmitted to a susceptible host. This infectious agent lives and multiplies in a reservoir. Discuss the reservoir as a one of the factors involved in the communicable disease chain of infection. [5]

[25 MARKS]

### QUESTION 3

The clinic in your area of jurisdiction has been experiencing an increase in the number of children presenting with faeco-orally transmitted diseases. Of importance has been typhoid fever. In a quest to control this disease, the first and most important option is to ensure that the public is knowledgeable about the disease. Therefore, during the Morning Prayer session at the clinic, you have been requested to present on this diseases.

- a) Using a diagrammatic illustration, discuss the 5 'Fs' that play an important role in the transmission of faeco-orally diseases. [10]
- b) Discuss this disease in terms of the following:
- i) Infectious agent [2]
  - ii) Incubation period [2]
  - iii) Mode of transmission [2]
  - iv) Symptoms [4]
  - v) Prevention and control [5]

[25 MARKS]

#### QUESTION 4

- A. The Ministry of Health in the country has noted that a number of children from the rural areas are underweight. Efforts to improve their nutritional status have been implemented for the past number of years. However, early this year, it was discovered that these children normally complain of chronic diarrhoea, abdominal cramps, bloating and frequent loose pale greasy stools. Among the school going children, teachers have been reporting that these children are always tired and thus it affects their performance at school. These symptoms are suggestive of faeco-oral borne diseases.
- a) What is the name of this communicable disease the children are suffering from? [2]
- b) Discuss this disease in terms of the following:
- i) Causative agent [2]
  - ii) Incubation period [2]
  - iii) Period of communicability [2]
- c) It has also been noted that people living with HIV normally have more frequent and prolong infection. Why is this so? [2]
- d) Discuss in depth the efforts that need to be implemented to prevent and control faeco-orally transmitted diseases. [10]
- B. In communicable disease control, it is important to have a clear picture of the susceptible host, as protecting the host is vital in the control path. Discuss how the susceptible host can be protected. [5]

**[25 MARKS]**

**QUESTION 5**

A group of government official will be travelling to Eritrea in the next couple of weeks. You are a member of the organizing committee as a health specialist. The government of Eritrea has sent the list of requirements for people entering the country. Yellow fever vaccination is listed among the key requirements. You are now expected to explain the necessity of this vaccine to the delegates. Firstly, you need to tell them about the diseases itself.

- a) Discuss this disease in depth using the chain of the disease infection. [10]
- b) Discuss the control and prevention of yellow fever stating the role vaccination plays in the control. [10]
- c) If you were a health official in Eritrea, what would your surveillance system include for this disease? [5]

**[25MARKS]**