



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

BSc. ENVIRONMENTAL HEALTH SCIENCES

MAIN EXAMINATION PAPER 2018

TITLE OF PAPER : CONTROL OF COMMUNICABLE DISEASES

COURSE CODE : EHS220

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

On the 14th of June 2016, the World Health Organization (WHO) declared Ebola outbreak over in Liberia. The organization reported that even though all the known chains of transmission have been stopped, the job is not over, thus a strong surveillance and response system will be critical in months to come. Evaluation of their control plan has revealed that the outbreak saw the country losing a large proportion of their health workers. These included nurses, laboratory personnel and the “burial boys”. The burial boys were a team of young men who were recruited to assist with the handling of the dead bodies. Their main challenges were that their families disowned them leading them to opting for squatter camps. There were so many dead bodies to be taken care of yet the transport was limited. These boys lacked training on the job; culture dictated that only close family members take care of the deceased body thus the boys faced resistance in their line of duty. On another note, the outbreak respected no weather pattern as even during rainy days there was a corpse to be buried and yet most of the roads in the country are not tarred. All these had to be taken care of in the planning of the surveillance and response system.

- a) Discuss the mode of transmission for this disease? [3]
- b) Outline the risks associated with the health worker and state how it could have been prevented, i.e. the control plan for the disease? [10]
- c) Looking at the job of the “burial boys”, outline the hazards associated with their jobs also stating how these hazards contributed to the spread of the outbreak resulting to the country losing so many people. [12]

Total [25]

QUESTION 2

- a) In the year 2017, Swaziland reported a case of Leprosy 23 years after the last case was reported. This has left the Swazi nation in suspense especially the elderly who witnessed the disease effects more than 2 decades ago. However, According to Dr Dumsile Mabundza during one of the training and information sharing session with practitioners, the disease is curable, and unlike in the biblical time, the disease is not

highly contagious. This is not to say it is not contagious but the chances of spread from one person to another are minimal, but are there.

You are hired by the Ministry of Health in the country to sensitize people and curb their anxiety with regard to the disease. It is part of your job to conduct health education session. Discuss the following as you prepare your health education session with regard to the disease of interest:

- i. Causative agent. [2]
 - ii. Mode of transmission. [3]
 - iii. Average incubation period. [2]
 - iv. Clinical manifestations. [4]
 - v. Prevention and control. [8]
- b) Leprosy is classified as an airborne disease; discuss airborne diseases in general and how they are controlled generally. [6]

Total [25]

QUESTION 3

The control of infectious diseases is important in promoting healthy populations. However, with the emergence of new diseases and re emergence of once controlled infectious diseases, nations are struggling to completely fight the battle against these diseases. The main purpose to controlling these diseases is to ensure their eradication. Nonetheless, most of these diseases have been eliminated amongst nations.

- a) What is meant by emerging and re-emerging diseases? [4]
- b) How is eradication different from eliminations? [5]
- c) Three terms are used to describe infectious diseases according to their outcome that may occur after exposure to its causative agent. [6]
- d) Discuss the five conditions that contribute to infectious diseases in the world. [10]

Total [25]

QUESTION 4

Understanding the chain of disease transmission is a cornerstone to controlling any disease as it helps in identifying the weakest link in the chain and thus focusing the control measures onto that link.

- a) Discuss the chain of disease transmission in depth, highlighting all the links in the chain in detail. [20]
- b) However, the presence of carriers for some infectious diseases has resulted in failed attempts to control those diseases.
What is meant by “carrier” and list the 4 types of carriers. [5]

Total [25]

QUESTION 5

- a) According to WHO (2015), diarrheal diseases kill 2 195 children everyday- more than AIDS, Malaria and Measles combined. They account for 1 in 9 child deaths worldwide.
 - i) Discuss the 3 types of diarrheal disease giving appropriate examples. [9]
 - ii) Discuss the general control strategy for diarrheal diseases in general population. [5]
- b) It cannot be disputed that regardless of the efforts by nations to work together in the control of diseases like measles children still die from this disease.
 - i) What is the causative agent for Measles? [1]
 - ii) What is the period of communicability of this disease? [2]
 - iii) Discuss the modes of transmission for Measles. [3]
- c) The problem of sexually transmitted infections (STIs) is also of concern in the world even though HIV/AIDS seems to be the main focus for interventions. It is still important to note that STIs are killing lots of people in the world especially the youth. Discuss the general control measures for STIs. [5]

Total [25]