MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY

(MMUST)

MAIN CAMPUS

UNIVERSITY EXAMINATIONS

MAIN EXAM

2022/2023 ACADEMIC YEAR

SECOND YEARSECOND SEMESTER EXAMINATION

MASTER OF SCIENCE IN PUBLIC HEALTH

COURSE CODE: PHE 822

COURSE TITLE: DISEASE SURVEILLANCE AND INVESTIGATION

DATE: 24TH APRIL 2023   TIME: 2.00PM-5.00PM

INSTRUCTIONS TO CANDIDATES:

1) Write your University Registration Number on every booklet that you use.
2) Do not write your name on any papers you use.
3) Answer all questions.
4) Each question contains a total of 20 marks.
5) The time allowed for this Paper is **Three (3)** hours.

LAQ 1

One of your deliverable as a student of master of science in public health is to design a public health surveillance system during your placement at a strategic public health program. Describe the public health surveillance system designing process (20 Marks).

LAQ 2

a. A report of food poisoning outbreak among people who attended a wedding hosted at one of the local Universities in Kakamega was received by the County Health authority in February 2, 2023. The County Director of Health requested for your support to investigate the report of the suspected food poisoning. Most of the wedding attendees complained of abdominal pains and diarrhea. You listed foods that were eaten by those who got ill and those who did not get ill as follows:

Food	Number of people who ate specified food and their condition		Number of people who did not specified food and their condition	
	III	Not ill	III	Not ill
Sukuma	32	23	26	18
Mutura	29	19	29	21
Githeri	23	16	34	25
NyamaChoma	49	17	9	24
Ugali	10	8	48	33

Based on the above data, answer the following questions;

(i) Giving reasons for your answer, explain the appropriate measure of association to be calculated in this outbreak investigation (5 Marks)

(ii) Calculate the measure of association in (i) above for each food, and explain the **MOST** likely cause ofthe food poisoning outbreak? (5 Marks)

b.   Describe outbreak management under the following sub-headings:

(i)   Describe any FIVE (5) objectives of outbreak management (5 Marks)

(ii)   State and explain any FOUR (4) components of an effective outbreak management (5Marks)

LAQ 3

a. Explain why it is important to perform descriptive epidemiology during an outbreak investigation (5 marks)

b. Describe the three categories of preparations ahead of field work in outbreak investigation (15 Marks).

LAQ4

a) Describe the steps in designing a questionnaire for a public health field investigation (10 Marks)

b) Compare Open and closed response questions by giving two (2) advantages and two (2) disadvantages for each (10 Marks)

LAQ5

Explain public health surveillance under the following headings

(a)   Definition of public health surveillance (2 Marks)
(b)   Uses of public health surveillance, giving examples (10 Marks)
(c)   Types of public health surveillance (8 Marks)