



**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)**

SCHOOL OF NURSING, MIDWIFERY AND PARAMEDICAL SCIENCES

**UNIVERSITY EXAMINATIONS
2021/2022 ACADEMIC YEAR**

SECOND YEAR SECOND TRIMESTER EXAMINATIONS

**FOR THE DEGREE
OF
BACHELOR OF SCIENCE IN NURSING**

COURSE CODE: NCO 326

COURSE TITLE: OCCUPATIONAL SURVEILLANCE

DATE: FRIDAY, 22ND APRIL, 2022

IME: 3.00 PM - 6.00 PM

INSTRUCTIONS TO CANDIDATES

All Questions Are Compulsory

TIME: 3 Hours

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 4 Printed Pages. Please Turn Over. ►

PART ONE: MULTIPLE CHOICE QUESTIONS MCQ (20 MARKS)

1. Which of the following BEST describes an 'epidemic'
 - A. The habitual presence of a disease within a given geographic area.
 - B. An outbreak of disease that attacks many people at about the same time and may spread through one or several communities.
 - C. When an epidemic spreads throughout the world.
 - D. Occurring at irregular intervals or in isolated or scattered places; having no pattern or order
2. Which of the following is a function of epidemiology?
 - A. Identifying the disease condition based on manifestations presented by a client
 - B. Determining factors that contributed to the occurrence of pneumonia in a 3 year old
 - C. Determining the efficacy of the antibiotic used in the treatment of the 3 year old client with pneumonia
 - D. Evaluating the effectiveness of the implementation of the Integrated Management of Childhood Illness
3. Which of the following is an epidemiologic function of the OSH during an epidemic?
 - A. Conducting assessment of suspected cases to detect the communicable diseases
 - B. Monitoring the condition of the cases affected by the communicable disease
 - C. Participating in the investigation to determine the source of epidemic
 - D. Teaching the community on preventive measures against the disease
4. The primary purpose of conducting an epidemiologic investigation is to;
 - A. Delineate the etiology of the epidemic
 - B. Encourage cooperation and support of the community
 - C. Identify groups who are at risk of contracting the disease
 - D. Identify geographical location of cases of the disease in the community
5. Exposure to occupational hazards: varies with individual susceptibility to the harmful effects of the hazardous agents
 - A. TRUE
 - B. FALSE)
6. Exposure to occupational hazards: may be measured or assessed by an occupational hygienist
 - A. TRUE
 - B. FALSE
7. Exposure" to occupational hazards: at levels below the legal occupational exposure limit cannot result in adverse health effects
 - A. TRUE
 - B. FALSE
8. Which of the following TRUE when investigating a case of possible work related illness:
 - A. it is always essential to remove the patient from the workplace under suspicion before commencing investigation
 - B. exposure to an agent at a level below its legal occupational exposure limits excludes it as a cause of ill-health
 - C. laboratory tests of function of a target organ are the most specific way of reaching a diagnosis
 - D. enquiries about symptoms or illness in other workers should be pursued
9. During surveillance in your community, you should always collect as much information as possible, even if you do not use it.
 - A. TRUE

- B. FALSE)
10. One of the major purposes of public health surveillance is to detect an epidemic before it can spread very far.
 - A. TRUE
 - B. FALSE
 11. A good surveillance system uses passive and active surveillance methods to collect and report the most complete data.
 - A. TRUE
 - B. FALSE
 12. Occupational health surveillance includes all the following **EXCEPT** which one activity?
 - A. Data analysis
 - B. Data interpretation
 - C. Data dissemination
 - D. E. Intervention
 13. Which of the following is NOT among the common uses and applications of occupational health surveillance:
 - A. Detecting changes in an infectious agent
 - B. Evaluating prevention and control measures
 - C. Monitoring long-term trends
 - D. Planning future resource needs for prevention
 14. The primary reason for preparing and distributing periodic surveillance summaries is which of the following?
 - A. Document recent epidemiologic investigations.
 - B. Provide timely information on disease patterns and trends to those who need to know it.
 - C. Provide reprints of morbidity and mortality weekly reports (*MMWR*) articles, and recommendations.
 - D. Acknowledge the contributions of those who submitted case reports
 15. Criteria for prioritizing health problems for surveillance include the following **EXCEPT**?
 - A. Incidence of the problem.
 - B. Public concern about the problem.
 - C. Number of previous studies of the problem.
 - D. Social and economic impact of the problem.
 16. The health department decides to strengthen its notifiable disease reporting. The one best action to take is to ...
 - A. Allow reporting through use of the Internet.
 - B. Require more disease-specific forms from local health departments.
 - C. Ensure that all persons with a responsibility to report understand the requirements and reasons for reporting and how reports will be used.
 - D. Reduce the number of diseases on the list.
 17. Underreporting is not a problem for detecting outbreaks of notifiable diseases because the proportion of cases reported tends to remain relatively stable over time.
 - A. True.
 - B. False
 18. Vital statistics are important sources of data on which of the following?
 - A. Morbidity.
 - B. Mortality.
 - C. Health-related behaviors.
 - D. Injury and disability.
 19. Active surveillance is characterized by:
 - A. Health care providers taking the initiative to contact the health department

- B. The health department taking the initiative to contact health care providers
 - C. The health department taking the initiative to track down contacts of case-patients
 - D. The health department taking the initiative to identify undetected cases through serosurveys
20. Which of the following is NOT a component of Occupational Health surveillance?
- A. Gathering information on cases of occupational diseases and injuries and on workplace exposures
 - B. Evaluating the type of data used to collect
 - C. Disseminating organized data to necessary parties, including workers, unions, employers, governmental agencies, and the public
 - D. Intervening on the basis of data to alter the factors that produced these health events and hazards

SECTION TWO: SHORT ANSWER QUESTIONS, SAQs (40 MARKS)

1. In 2021, the County Health Office asked you to visit all households in your village to check for the presence of a cough lasting more than two weeks in adults (that is, people aged 15 years or older). The total adult population was 4,000 people in that year. Following this request, you visited all households and identified 100 people who had a cough lasting more than two weeks. Of these 100 people, 10 had a confirmed diagnosis of tuberculosis (TB) after laboratory investigation.
 - a. Name the type of surveillance you conducted in the example above? (2 marks)
 - b. Calculate the incidence rate of tuberculosis in adults in your village. (6 marks)
2. Outline eight health-related conditions among humans targeted by the current public health surveillance (8 marks)
3. Outline any 8 sources of data used in Occupational Safety and Health (8 marks)
4. Outline 8 Occupational Health surveillance activities in Kenya (8 marks)
5. Outline 8 elements used in establishing and maintaining a surveillance system (8 marks)

SECTION THREE: LONG ANSWER QUESTIONS, LAQs (40 marks)

1. By use of examples, explain the following terms as used in Occupational health surveillance:
 - a. Active surveillance (4 marks)
 - b. Passive surveillance (4 marks)
 - c. Categorical surveillance (4 marks)
 - d. Integrated surveillance (4 marks)
 - e. Syndromic surveillance (4 marks)
2. Explain the objectives of Occupational health services (20 marks)