



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

**MAIN CAMPUS
SCHOOL OF NURSING MIDWIFERY AND PARAMEDICAL SCIENCES**

**UNIVERSITY EXAMINATIONS
2022/2023 ACADEMIC YEAR**

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

**COURSE CODE: NPP 327
COURSE TITLE: PUBLIC HEALTH AND EMS**

DATE: 12TH APRIL 2023

TIME: 8 AM – 11 AM

INSTRUCTIONS TO CANDIDATES

All questions in the three sections (A, B and C) are compulsory.

DURATION: 3 Hours

Answer all questions on the booklet provided.

MMUST observes ZERO tolerance to examination cheating.

SECTION A - MULTIPLE CHOICE QUESTIONS AND TRUE/FALSE QUESTIONS (20 Marks)

MULTIPLE CHOICE QUESTIONS ON QUESTIONS 1-18

(18 Marks)

Instructions: Choose the most appropriate answer

1. The following are key elements of health promotion EXCEPT:
 - A. Good Governance for health
 - B. Health literacy
 - C. Healthy Cities
 - D. Prevention of diseases

2. Screening is the search for unrecognized disease or defect by means of rapidly applied tests, this occurs in which level of prevention:
 - A. Primordial level
 - B. Primary level
 - C. Secondary level
 - D. Tertiary level

3. There was a rapid increase in the spread of “Super Gonorrhoea” in December in Nairobi region. Health care facilities were advised to screen all patients seeking health care in the region of the disease. Which type of screening was applied.
 - A. Mass screening
 - B. Opportunistic screening
 - C. Multipurpose screening
 - D. Multiphasic screening

4. The loss or abnormality of psychological, physiological or anatomic structure or function is defined as
 - A. Impairment
 - B. Disability
 - C. Handicap
 - D. Disease

5. The following are components of Primary Health Care EXCEPT;
 - A. Health education
 - B. Management of common diseases
 - C. Provision of mental health services
 - D. Physical education

6. The following are pillars of primary Health Care EXCEPT;
 - A. Political commitment

- B. Multi-sectoral collaboration
 - C. Appropriate technology
 - D. All the above
7. The act of giving community people power and the right to take decisions on what affect them is referred to as.
- A. Decentralization
 - B. Primary Health Care Services
 - C. Community Capacity building
 - D. Community empowerment
8. A two-way process communication that involves the critical analysis and in-depth understanding of issues and concerns in the community is referred to as.
- A. Health promotion
 - B. Community dialogue
 - C. Community diagnosis
 - D. Community survey
9. Which of the following belongs to structure of community-based Health care?
- A. Community Working together
 - B. Trained community member
 - C. Development committee
 - D. All the above
10. Which of the following infectious disease is most notifiable at national level?
- A. Typhoid
 - B. Measles
 - C. Haemophilia Type B
 - D. Pneumonia
11. In which of the following year was Alma Alta declaration passed?
- A. 1798
 - B. 1977
 - C. 1987
 - D. 1978
12. The service that intends to assist the community to identify individuals who are under privileged is referred to as.
- A. Community based health care (CBHC)
 - B. Primary Health Care (PHC)
 - C. Alma Alta declaration
 - D. Community based Rehabilitation
13. The term that best describes the number of new cases occurring in a given community at a particular point of time is termed as.

- A. Sporadic
- B. Endemic
- C. Epidemic
- D. Incidence

14. Anal pruritus is a common symptom of worm infestation called?

- A. Hook worm
- B. Round worm
- C. Tape worm
- D. Thread worm

15. According to C.E. Winslow, which of the following is the goal of Public Health?

- A. For people to attain their birthrights and longevity
- B. For promotion of health and prevention and diseases
- C. For people to have access to basic health services
- D. For people to be organized in their health efforts

16. In which step are plans formulated for solving community problems?

- A. Mobilization
- B. Community organization
- C. Follow-up/extension
- D. Core group formation

17. The time of period between entering of pathogen into the body and appearance of symptoms of diseases is called.

- A. Incubation period
- B. Adoption period
- C. Reserve period
- D. Incubation period

18. Which of the following diseases is not transmitted through airborne?

- A. Measles
- B. Rubella
- C. Chicken pox
- D. Yellow Fever

19. Which of the following disease is transmitted via oral- faecal route:

- A. Bucellosis
- B. Poliomyelitis
- C. Schistosomiasis
- D. None of the above

20. Constant presence of disease in an area during a period of time is:

- A. Endemic

- B. Epidemic
- C. Sporadic
- D. Pandemic

SECTION B: SHORT ANSWER QUESTIONS

(40 Marks)

Instructions: Answer all Questions

1. Define the following terms: (1 Mark each)
 - a. Disease Outbreak
 - b. Community-based interventions
 - c. Community mobilization
2. Outline the core functions of Public Health (3 Marks)
3. State the steps in Community Diagnosis (4 Marks)
4. Explain the factors that affects health of a community (8 Marks)
5. Explain the models of community organization according to Rothman (6 Marks)
6. A study was made of a clinician's ability to diagnose streptococcal throat infections in 149 patients coming to the emergency department in a certain hospital. The doctor's clinical impressions were compared to results of throat cultures or group A streptococcus. 37 patients had positive throat cultures and 27 of these were diagnosed by doctor as having strep throat. 112 patients had negative cultures, and the doctors diagnosed 35 of these as having strep throat. Calculate the following:
 - a. Sensitivity of the clinical judgement (4 Marks)
 - b. Specificity of the clinical judgment (4 Marks)
 - c. Positive Predictive Value of the findings (PPV) (4 Marks)
 - d. Negative Predictive Value of the findings (NPV) (4 Marks)

SECTION C: LONG ANSWER QUESTIONS

(40 Marks)

Instructions: Answer all Questions

1. While working at the Accident and Emergency department, you notice a rising number of cases of patients who present in the department with vomiting, diarrhoea and malaise. You are tasked to investigate this disease outbreak. Describe the steps you will use to investigate this outbreak (20 Marks)
2. Using the Health Belief Model, describe how you will promote awareness of lifestyle diseases in a community (20 Marks)