



MASENO UNIVERSITY
UNIVERSITY EXAMINATIONS 2013/2014

**SECOND YEAR THIRD SEMESTER EXAMINATIONS FOR BACHELOR
OF MEDICINE AND BACHELOR OF SURGERY WITH INFORMATION
TECHNOLOGY
(MAIN CAMPUS)**

MCH 202: COMMUNITY HEALTH I

Date: 22nd November, 2013

Time: 9.00 – 12noon

INSTRUCTION:

- This paper consists of three sections, I, II and III.
- Answer ALL questions in each section.
- Read additional comments in each section.

SECTION I: MCQs (30 MARKS)

ANSWER ALL THE QUESTIONS IN THIS SECTION

INSTRUCTION: THE FOLLOWING QUESTIONS HAVE ONE (1) CORRECT ANSWER ONLY

1. Population overshoot occurs when:
 - a. Humans underuse their resources
 - b. Humans exceed carrying capacity
 - c. There is no reproductive time lag
 - d. There is resource overconsumption
 - e. All the above
2. The lifespan of a population in the population pyramid is represented by:
 - a. The height of the pyramid
 - b. The shape of the apex
 - c. The base of the pyramid
 - d. The sloping sides
 - e. None of the above
3. Which of the following is not a limitation of Census
 - a. Cumbersome
 - b. Difficult to analyze
 - c. Expensive
 - d. Less accurate
 - e. More time lag
4. Population dynamics include all the following except
 - a. Population density
 - b. Population size
 - c. Age distribution
 - d. Exponential growth
 - e. None of the above
5. The total number of persons added or subtracted from a population as a result of the combined effect of immigration & emigration is called
 - a. Net migration
 - b. Population change
 - c. Age sex composition
 - d. Population doubling
 - e. Population dynamics
6. Vaccinations offered to infants at birth include;
 - a. Yellow fever
 - b. Tetanus toxoid
 - c. Hepatitis B vaccine

- d. Bacille Calmette Guerin
 - e. Measles
7. Community health workers are trained and offer the following family planning services in the villages:
- a. Tubal ligation
 - b. Implanon
 - c. Jadelle
 - d. The patch
 - e. Female condoms
8. The following activities are part of the community strategy in primary health care EXCEPT
- a. Spring water protection
 - b. Distribution of mosquito nets
 - c. Community health dialogue days
 - d. Hospice services
 - e. Food safety campaigns
9. The routinely performed investigations at the antenatal clinic include
- a. Blood grouping and rhesus factor
 - b. Obstetric ultrasound
 - c. Chorionic villous sampling
 - d. Indirect coombs test
 - e. Sickling test
10. Danger signs in pregnancy include the following EXCEPT
- a. Drainage of liquor
 - b. Fever
 - c. Normal fetal movements
 - d. Convulsions
 - e. Fainting
11. The following services are offered at the tier one facilities in the Kenyan health system
- a. Health education
 - b. Cancer treatment
 - c. Caesarean section
 - d. Blood transfusion
 - e. Anti snake venom
12. As part of growth monitoring in infants, the health workers take the following tests routinely;
- a. Blood group
 - b. Haemoglobin level
 - c. Weight
 - d. Urinalysis

- e. Body mass index,(BMI)
13. The following cadres of health workers are found at the health centre EXCEPT
- a. Consultant physician
 - b. Enrolled community health nurse
 - c. Laboratory technologist
 - d. Clinical officer
 - e. Records and information officer
14. Manyuanda Health centre is referred to as a basic essential obstetric care facility because it offers the following services EXCEPT
- a. Magnesium sulphate for eclampsia
 - b. Blood transfusion
 - c. Parenteral antibiotics
 - d. Manual removal of placenta
 - e. Post abortal care services
15. Signs of pregnancy include;
- a. Weight gain
 - b. Shiny skin
 - c. Frequency of urination
 - d. Positive pregnancy test
 - e. Nausea and vomiting
16. Which of the following statements best describes an operational definition?
- a. One that bears no relation to the underlying concept
 - b. An abstract, theoretical definition of a concept
 - c. A definition of a concept in terms of specific empirical measures
 - d. A description of two variables in a study design
 - e. A combination of more than three hypothesis in a study design
17. If a researcher is studying the effect of using laptops in his classroom to ascertain their merit and worth, he is likely conducting which type of research?
- a. Applied
 - b. Basic
 - c. Experimental
 - d. Evaluation
 - e. Grounded theory
18. The statement '*an examination of the effects of discretionary behaviour on employee performance*' describes a specific objective of a study. The EMPLOYEE PERFORMANCE is the:
- a. Dependent variable
 - b. Independent variable
 - c. Extraneous variable
 - d. Causal variable
 - e. Evaluative variable
19. What is the basis of a scientific research?
- a. To formulate a research problem and disprove the hypothesis

- b. To test if the hypothesis is good enough for scientific publication
 - c. To test hypotheses in conditions that is conducive to the success of the research
 - d. To test the hypotheses and if they are disapproved, they should be abandoned completely
 - e. To formulate a research problem, test the hypothesis in carefully controlled conditions that challenge the hypothesis
20. A research method that starts with formulation of hypothesis and testing of hypothesis in sequential steps where deduction is applied is?
- a. Inductive
 - b. Deductive
 - c. Hypothetico-inductive
 - d. Hypothetico-deductive
 - e. Both (a) and (c)
21. Which of the following statements is FALSE?
- a. The sample standard deviation is a measure of spread around the sample mean
 - b. The sample standard deviation is a measure of central tendency around the median
 - c. The sample mean is more sensitive to extreme values than the median
 - d. The sample range is more sensitive to extreme values than the standard deviation
 - e. If a distribution is symmetric, then the mean will be equal to the median
22. The following are rigors in qualitative research EXCEPT?
- a. Durability
 - b. Dependability
 - c. Credibility
 - d. Transferability
 - e. Conformability
23. The term test scores of 15 students enrolled in a medical statistics class were recorded in ascending order as follows:
4, 7, 7, 9, 10, 11, 13, 15, 15, 15, 17, 17, 19, 19, 20
- After calculating the mean, median, and mode, an error is discovered that one of the 15's is really a 17. The measures of central tendency which will change are;
- a. Mean only
 - b. Mode only
 - c. Median only
 - d. Mean and mode
 - e. Mean, median and mode
24. _____ are used when you want to visually examine the relationship between two quantitative variables.
- a. Bar graphs
 - b. Pie graphs
 - c. Line graphs
 - d. Scatterplots
 - e. Vertical graphs

25. Let's suppose we are predicting score on a training posttest from number of years of education and the score on an aptitude test given before training. Here is the regression equation $Y = 25 + 0.5X_1 + 10X_2$, where X_1 = years of education and X_2 = aptitude test score
- What is the predicted score for someone with 10 years of education and an aptitude test score of 5?
- 25
 - 50
 - 35
 - 75
 - 80
26. Which of the following statements regarding macronutrient energy value is True?
- Carbohydrates provide 9kcal/gram consumed
 - Protein provides 2kcal/gram consumed
 - Fat provides 7kcal/gram consumed
 - Protein provides 4kcal/gram consumed
 - Fat provides 12kcal/gram consumed
27. The following statement is true regarding nutritional care in a patient with HIV/AIDs
- An adult in Stage 1 of HIV requires 30% more of energy compared to a non-infected person
 - Children who are symptomatic and experiencing weight loss need 50% - 100 % more energy per day
 - HIV infected persons require 10% more compared to non-infected persons
 - Children who are symptomatic but not experiencing weight loss require 10% more energy to maintain growth
 - Stage 2 disease with AIDS related symptoms requires additional 200-250 kcal/gram
28. The following statement on Weight for height index are true, EXCEPT:
- Describes current nutritional status
 - Children whose Z-scores are below minus two standard deviations (-2 SD) are considered thin (wasted) and are acutely malnourished
 - Wasting may be the result of a recent episode of illness causing loss of weight and the onset of malnutrition.
 - Children whose weight-for-height is below minus three standard deviations (+3 SD) are considered overweight
 - May be used in community nutritional survey
29. The following statement best describe the weight for age index
- It takes into account both acute and chronic malnutrition.
 - Children who are plus three standard deviations (+3 SD) are considered overweight
 - The index is an indicator of linear growth retardation

- d. The measurement indicates nutritional adequacy
 - e. Children whose weight-for-age is below minus three (- 3 SD) standard deviations are classified as underweight
30. Direct methods of assessing community nutritional status include the following, EXCEPT?
- a. Clinical examination
 - b. Full hemogram
 - c. 24 hour food recall
 - d. Blood lipid assays
 - e. Anthropometric measurements

SECTION II: SHORT ANSWER QUESTIONS (30 MARKS)

INSTRUCTIONS: THIS SECTION HAS SIX (6) SHORT ANSWER QUESTIONS EACH FIVE (5) MARKS. ANSWER ALL THE QUESTIONS

1. State the differences between primary and secondary data collection methods. (5 marks)
2. Explain the differences between a population pyramid of a developing country and that of a developed country? (5 marks)
3. From 1981 to 1990, there were a total of 850 cases of acquired immunodeficiency syndrome (AIDS) reported among the Hispanic population in Houston, Texas. A total of 595 deaths from AIDS in Hispanics occurred during the same period. In 1991, 95 new cases of the disease were reported in the same population. The estimated mid-year population of Hispanics in 1991 was 452,780. Calculate the incidence rate and prevalence rate of AIDS per 100,000 population among the Hispanics in Houston in 1991. For ease of calculation, assume that cases alive at the beginning of 1991 lived for the entire year. (5 marks)
4. State at least four (4) ways in which gender influences the health of men and women in a community; give an example for each. (5 marks)
5. List ten (10) functions of the District Health Management Team (DHMT). (5 marks)
6. Briefly explain the difference between qualitative and quantitative research methods. (5 marks)

SECTION III: LONG ANSWER QUESTIONS (40 MARKS)

INSTRUCTIONS: THIS SECTION HAS TWO (2) QUESTIONS. ANSWER BOTH QUESTIONS

1. After carrying out community diagnosis of Mayieka village, it was discovered that the community had inadequate nutritional status. A decision to institute a nutritional intervention was made.
 - a. What is a nutritional intervention? (2 Mark)
 - b. Describe how you would plan for nutritional intervention in the community (8 Marks)
 - c. Describe any five approaches to nutritional intervention that can be carried out in the community (10 Marks)
2. Outline and describe the classification of community diagnosis parameters. (20 marks)