

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**SECOND YEAR EXAMINATION FOR THE AWARD OF
DEGREE OF BACHELOR OF SCIENCE IN NURSING**

NURU 276: EPIDEMIOLOGY AND DEMOGRAPHY

STREAMS: BScN UPGRADING (Y2T3)

TIME: 2 HOURS

DAY/DATE : TUESDAY 28 /09/ 2021

11.30 AM – 1.30 PM

INSTRUCTIONS:

- Do not write anything on the question paper.
- Mobile phones and any other reference materials are NOT allowed in the examination room.
- The paper has THREE sections. Answer ALL questions
- Number ALL your answers and indicate the order of appearance in the space provided in the cover page of the examination answer booklet.

MCQS (5 MARKS)

1. You will gather data for nutritional assessment of a location. You will gather information only from families with members who belong to the target population for PEM. What method of data gathering is best for this purpose?

- A. Census
- B. Survey
- C. Record Review
- D. Review of civil registry

2. You are computing the crude rate of your municipality, with a total population of about 18,000 for last year. There were 94 deaths. Among those who died, 20 died because of diseases of the heart and 32 were aged 50 years or older. What is the crude death rate?

- A. 4.1/1000
- B. 5.2/1000
- C. 6.3/1000
- D. 7.3/1000

3 The zero population growth due to equal birth and death rates is called:

- (a) Natural increase
- (b) Demographic transition
- (c) Fertility rate
- (d) Replacement level

4. What denominator is used in computing general fertility rate?

- A. Estimated midyear population
- B. Number of registered live births
- C. Number of pregnancies in the year
- D. Number of females of reproductive age.

5. The mode of transport of an infectious agent through the environment to a susceptible host is called a: A. carrier B. reservoir C. vector D. vehicle

SHORT ANSWER QUESTIONS. (45 MARKS)

1. Differentiate between a. Risk Factors and Precipitating Factors

- b. attack rate and secondary attack rate (6 marks)
- 2. With aid of a diagram explain the natural history of disease (7 marks)
- 3. Explain any three (3) uses of epidemiology (6 marks)
- 4. Outline four (4) objectives of carrying out community diagnosis. (4 marks)
- 5. With aid of a diagram describe the demographic transition model. (6 marks)
- 6. Explain three (3) models of disease causation (9 marks)
- 7. An outbreak is suspected following consuming “contaminated samosa” in a restaurant in the nearby town. 52 people who ate in the restaurant in question turn out in your facility with “food poisoning”, 40 of whom confirm consuming samosa. You are also able to trace 35 other people who ate in the same restaurant the same day but did not suffer from food poisoning and 11 of them gives history consuming samosa. As an epidemiologist you are interested in finding out whether samosa really caused food poisoning.
 - a.) Draw the 2X2 contingency table showing the disease and exposure. (2 marks)
 - b.) Calculate the odds ratio of developing food poisoning between the two groups. (3 marks)
(Show your work.)
 - C. Explain the interpretation of your results giving reasons. (2 marks)

LONG ANSWER QUESTION (20 MKS)

- 1. Discuss both descriptive and analytical studies and their use in epidemiology. (20 marks).

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