

UNIVERSITY OF SWAZILAND

FACULTY OF HEALTH SCIENCES

(SECOND SEMESTER)

FINAL EXAMINATION PAPER

MAY 2010

COURSE CODE: NUR 521
COURSE TITLE: COMMUNITY HEALTH NURSING IV
TIME ALLOWED: 2 HOURS
MARKS ALLOCATED: 75

INSTRUCTIONS:

- 1) THIS PAPER CONTAINS THREE QUESTIONS (3) QUESTIONS.**
- 2) ANSWER ALL QUESTIONS**
- 3) ANSWER EACH QUESTION ON A SEPARATE SHEET OF PAPER.**

PLEASE DO NOT OPEN THIS PAPER UNTIL PERMISSION HAS BEEN GRANTED BY THE INVIGILATOR.

QUESTION 1

- 1) Briefly define epidemiology and discuss the implications inherent in the definition[5]
- ii) Discuss five objectives of epidemiology.....[5]
- iii) Briefly discuss the natural history of disease.....[5]
- ii) The natural history of disease may be divided into two periods. Name and discuss these periods.....[10]

TOTAL MARKS.....[25]

QUESTION 2

- i) Incidence and prevalence rates are used in public health to measure morbidity. Briefly discuss the two different concepts.....[5]
- ii) The following are imaginary population and vital statistics for country X for the year 2003

Total midyear population	80,000
Population 45 years of age and over	20,000
Number of infants born alive	2000
Fetal deaths (reported)	32
Maternal deaths	1
Total deaths	648
Death under 1 year of age	42
Deaths of persons 45 and over	300

From heart disease	98
From cancer	60
From stroke	48
From all other causes	94

From the above data calculate the following indices of health for the country, applying the usual constant (e.g. x 1000 or x 10000).

- A. Crude birth rate.....[2]
- B Crude death rate.....[2]
- C Infant mortality rate.....[2]
- D Fetal death rate.....[2]
- E Maternal mortality rate.....[2]
- F Age –specific death rate for persons 45 and over.....[2]
- G Age-cause specific death rates for those 45 and over for:
 - i) heart disease.....[2]
 - ii) cancer.....[2]
- H Proportionate mortality ratios for those 45 and over for:
 - i) cancer.....[2]
 - ii) stroke.....[2]

TOTAL MARKS.....[25]

QUESTION 3

- i) A new screening test for a certain disease is being evaluated. The test was administered to 480 persons, 60 of whom are known to have the disease. This new test was found to be positive in 50 of the 60 people with the disease, as well as in 15 people who do not have the disease. Calculate the following values:
- 1) The sensitivity of the test.....[2]
 - 2) The specificity of the test.....[2]
 - 3) The percentage of false positives.....[2]
 - 4) The percentage of false negatives.....[2]
 - 5) The prevalence of the disease.....[2]
- ii) Briefly describe the factors you would consider in designing surveillance for HIV/AIDS.....[15]

TOTAL MARKS.....[25]

