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**W1-2-60-1-6**

**JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY**

**UNIVERSITY EXAMINATIONS 2019/2020**

**SPECIAL/SUPPLEMENTARY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN NURSING**

**INS 2212: EPIDEMIOLOGY AND DEMOGRAPHY**

**DATE: JANUARY, 2020 TIME: 2 HOURS**

**SECTION A: MULTIPLE CHOICE QUESTIONS**

1. One of the following statements is a primary preventive measure for PTB

a. provide public health nursing outreach services

b. BCG vaccination of new borns and grade I school entrants

c. make available medical and X-ray facilities

d. Educate the public on the mode of transmission and methods of control of PTB

2. In the natural history of disease, the time interval between the first exposure at the appearance of the fist signs and symptom is called:-

a. Prodromal period

b. Incubation period

c. Pathogenesis

d. Convalescence

3. The ability of an organism to invade and multiply in the body of the ffhost is called:-

a. Virulence

b. Infectivity

c. Pathogenicity

d. Contagiousness

4. Prevention of the emergence or development of risk factors in population groups is also referred to as:-

a. Primary prevention

b. Tertiary prevention

c. Primordial prevention

d. Secondary prevention

5. Measures of reliability of a test include the following EXCEPT

a. Inter-rate percentage agreement

b. Test-retest

c. Internal consistency

d. Predictive values

**SHORT ANSWER QUESTIONS: 25 MARKS**

1. Differentiate between descriptive and analytic epidemiology. (5 marks)

2. Outline advantages and disadvantages of case control studies. (5 marks)

3. Outline five reasons why epidemiology important in population health.

(5 marks)

4. Describe demographic transition. (5 marks)

5. Differentiate between incidence and prevalence rate. (5 marks)

**LONG ANSWER QUESTION: 40 MARKS**

1. Vital statistics are important in monitoring the health of any population.

a. Describe any five vital statistics. (10 marks)

b. Outline the various sources of demographic data. (10 marks)

2. During one of their field studies, Epidemiology students studied 500 subjects and collected the following data on coronary heart disease (CHD) and whether or not individuals had a history of smoking in a certain village. Among those who smoked, 112 had CHD while 176 were free from the disease. Among the non-smokers, 88 had developed CHD while 224 were healthy.

a. Summarize the information in a 2 by table. (4 marks)

b. Calculate:-

i. The prevalence of CHD in this population. (4 marks)

ii. The relative risk (RR). (4 marks)

iii. The attributable risk. (4 marks)

iv. Explain your result in (ii and iii) above. (4 marks)