



**AMREF INTERNATIONAL UNIVERSITY
SCHOOL OF MEDICAL SCIENCES
DEPARTMENT OF NURSING AND MIDWIFERY SCIENCES
KENYA REGISTERED COMMUNITY HEALTH NURSING
END OF SEMESTER EXAMINATIONS**

DNS 223: EPIDEMIOLOGY, DEMOGRAPHY AND COMMUNICABLE DISEASES

DATE:

TIME: 2 Hours

Start: 0900 HOURS

Finish: 1100 HOURS

INSTRUCTIONS

1. This exam will be marked **out of 70 Marks**
2. ALL Questions are compulsory.
3. The Examination has Three Sections: Section I- Multiple Choice Questions, Section II: Short Answer Questions, Section III: Long Essay Questions
4. Answer all Questions in the ANSWER BOOKLET provided
1. Do Not write anything on the question paper -use the back of your booklet for rough work if need be.

SECTION I: MULTIPLE CHOICE QUESTIONS (20 MARKS)

1. Host factors in disease transmission include:
 - a. Age, virulence.
 - b. Pathogenicity, drug susceptibility.
 - c. Gender, immune constitution.
 - d. Altitude, climate change.

2. A host in which the adult parasite reaches sexual maturity is known as the :
 - a. Definitive host
 - b. Intermediate host
 - c. Transport host
 - d. Reservoir host

3. Contagious diseases include:
 - a. Scabies, Measles.
 - b. Malaria, Tuberculosis.
 - c. Human immunodeficiency virus, Trachoma.
 - d. Measles, chicken pox.

4. The vector for *Trypanosoma brucei* is:
 - a. Sandfly.
 - b. Tsetse fly.
 - c. Reduviid bug.
 - d. Simulium damnosum.

5. Dermatophytosis of the scalp are called:
 - a. Tinea pedis
 - b. Tinea manuum
 - c. Tinea cruris
 - d. Tinea capitis.

6. Assessment findings expected of a client with severe dehydration in cholera include:
 - a. Drinking eagerly, lethargy.
 - b. Lethargy, very sunken eyes.
 - c. Irritability, drinking eagerly.
 - d. Skin pinch goes back slowly, very sunken eyes.

7. An action that best exemplifies a Hepatitis B positive mother's knowledge of potential Hepatitis B transmission to the newborn is that the mother:
 - a. Requests that the window be closed before feeding.
 - b. Holds the newborn properly during feeding and burping.
 - c. Tests the temperature of the formula before initiating feeding.
 - d. Washes and dries her hands before and after self-care of the perineum and asks for a pair of gloves before feeding.

8. An assessment finding indicative of meningitis is:
 - a. A negative Kernig's sign
 - b. Absence of nuchal rigidity
 - c. A positive Brudzinski's sign
 - d. A Glasgow Coma Scale score of 8.

9. An activity in primary prevention of disease is:
 - a. Screening.
 - b. Immunization
 - c. Health education
 - d. Rehabilitation

10. The nurse is following a group of elderly women for three (3) years to investigate how their cholesterol levels will change within the three years. The study design employed by the nurse is:
- Cross-sectional.
 - Case series.
 - Case control.
 - Cohort.
11. A village had a population of 1,000 people in 2023. A total of 100 children were born in the village in 2023 and there were 25 reported deaths in the village during this time. There was zero (0) net migration in the village. The natural increase in this village is:
- 25
 - 50
 - 75
 - 1,075
12. When reading a Tuberculin skin test (TST) in a HIV positive child:
- An induration of >5 mm is suggestive of TB infection.
 - An induration of >5 mm is suggestive of TB disease.
 - An induration of induration of >10 mm is indeterminate.
 - An induration of induration of >10 mm indicates TB infection.
13. The aetiologic agents for Visceral leishmaniasis are:
- L. major*, *L. tropica*
 - L. infantum*, *L. donovani*.
 - L. braziliensis*, *L. panamensis*.
 - L. tropica*, *L. panamensis*.

14. In the management of tuberculosis , Pyridoxine (Vitamin B6) is used to prevent peripheral neuropathy caused by:
- Rifampicin.
 - Pyrazinamide.
 - Isoniazid.
 - Ethambutol.
15. The occurrence of new cases of disease in a population at a given time is:
- Prevalence.
 - Incidence.
 - Rate ratio.
 - Rate ratio.
16. The infective form of schistosomiasis is:
- Copepods.
 - Cercaria.
 - Schistosomule.
 - L3 larva.
17. Koplik's spots are:
- Pinpoint petechiae noted on both legs.
 - Whitish vesicles located across the chest.
 - Petechiae spots that are reddish and pinpoint on the soft palate.
 - Small, blue-white spots with a red base found on the buccal mucosa.
18. A TB negative 3-year-old child living with a TB positive grandmother should be:
- Treated with RHZE for six months.
 - Treated with Isoniazid for six months.
 - Isolated from the mother until mother is treated.
 - Treated with pyridoxine for six months.

19. Pauci-bacillary (MB) leprosy is:

- a. Caused by mycobacteria *caprae*
- b. Treated using Dapsone and Clofazimine for six months.
- c. Treated using Dapsone and Clofazimine for twelve months.
- d. Treated using Rifampicin, Clofazimine and Dapsone for twelve months.

20. Indicate whether TRUE or FALSE regarding Chlamydia Trachomatis.

- i. Serotypes A, B, Ba and C cause eye infection.
- ii. Serotypes D-K mainly cause eye infection.

SECTION II: SHORT ANSWER QUESTIONS (30 MARKS)

1. Describe the pathophysiology of bacterial meningitis (5 Marks).
2. Outline five (5) clinical features of Leprosy (5 Marks).
3. Describe the pathophysiology of cholera (5 Marks).
4. State five (5) ways of preventing trachoma in the community (5 Marks).
5. Outline five (5) ways of controlling sandflies (5 Marks).
6. Outline five (5) ways of preventing hepatitis C infection (5 Marks).

SECTION III: LONG ANSWER QUESTION (20 MARKS).

1. Tuberculosis is condition of significant public health concern in Kenya.
 - a. Describe the pathophysiology of pulmonary tuberculosis (5 Marks).
 - b. State four (4) clinical features of pulmonary tuberculosis (4 Marks)
 - c. Outline eleven (11) preventive measures for tuberculosis (10 Marks)