



**AMREF INTERNATIONAL UNIVERSITY
SCHOOL OF MEDICAL SCIENCES
DEPARTMENT OF NURSING AND MIDWIFERY SCIENCES
KENYA REGISTERED COMMUNITY HEALTH NURSING
END OF SEMESTER AUGUST 2024 EXAMINATIONS**

DNS 223 : EPIDEMIOLOGY, DEMOGRAPHY AND COMMUNICABLE DISEASES

DATE: THURSDAY 15TH AUGUST 2024

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**
- 5. 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. The pattern of disease occurrence described as always present in a community, at a low, more or less constant, frequency are classified as ;-
 - A. Epidemic
 - B. Endemic
 - C. Pandemic
 - D. Hyper epidemic
2. A pap smear for early detection of cervical cancer and papilloma virus constitutes:-
 - A. Primary prevention
 - B. Secondary prevention
 - C. Tertiary prevention
 - D. Primordial prevention
3. First step of epidemic investigation is:-
 - A. Preparing case definition
 - B. Mapping the epidemic
 - C. Confirmation
 - D. Searching for the cases
4. The following is the best indicator of health status of a community:-
 - A. Birth rate
 - B. Infant mortality rate
 - C. Crude death rate
 - D. None of the above
5. In the following circumstance, the prevalence of a disease in the population will increase, if all other factors remain constant:-
 - A. If the incidence rate of the disease falls
 - B. If survival time with the disease increases
 - C. If recovery of the disease is faster
 - D. If the population in which the disease is measured increases
6. In epidemiological studies the prevalence rate can be calculated from:
 - A. Cross- sectional studies
 - B. Cohort studies
 - C. Correlation studies
 - D. Case-control studies

7. The father of demography is:-
- A. John Grant
 - B. John Snow
 - C. Breson
 - D. Haley
8. A foreigner entering the country from a place outside the country is:-
- A. In- migrant
 - B. Immigrant
 - C. Emigrant
 - D. Out-migrant
9. The following disease is correctly matched to its causative organism:-
- A. Filariasis - *Wuchereria Bancrofti*
 - B. Kala-azar - *Glossina Species*
 - C. Sleeping sickness - *Leishmania Donovanii*
 - D. Malaria - *Anopheles Species*
10. Recurring chills and fever in malaria is due to:-
- A. Destruction of micro and macrogametocytes by the WBCs
 - B. Rupturing of RBCs by rapid multiplication and release of haemozoin
 - C. Toxins released from trophozoites
 - D. Sporozoites released from RBCs and are rapidly being killed in the spleen
11. The most common clinical forms of anthrax is :-
- A. Cutaneous anthrax
 - B. Respiratory anthrax
 - C. Gastrointestinal anthrax
 - D. All forms above mentioned have approximately the same incidence
12. The reservoir for salmonella typhi is:-
- A. Humans
 - B. Cattle
 - C. Humans and cattle
 - D. Rodents
13. Plague is caused by:-
- A. *Leishmania donovani*
 - B. *Yersinia pestis*
 - C. *Salmonella typhimuium*
 - D. *Trichinella spiralis*

14. Kala-azar is transmitted by
- A. Dragon fly
 - B. Housefly
 - C. Tse-tse fly
 - D. Sand fly
15. Prevention of human brucellosis depends primarily on:-
- A. Pasteurization of dairy products derived from goats, sheep or cows
 - B. Immunization of farmers
 - C. Control of insect vector
 - D. Destruction of infected animals
16. The term used when an adult form of a microorganism is ingested with food, establishes itself in the host's body and multiplies is:-
- A. Infection
 - B. Intoxication
 - C. Contamination
 - D. Incubation
17. The reservoir for brucellosis is:-
- A. Humans
 - B. Rodents
 - C. Cattle
 - D. Ticks
18. The following parasite is responsible for the causation of African sleeping sickness :
- A. Entamoeba
 - B. Leishmania
 - C. Trypanosoma
 - D. Trichomonas
19. The following conditions are caused by poor water hygiene:-
- A. Leprosy
 - B. Trachoma
 - C. Conjunctivitis
 - D. All of the above
20. The period between exposure and first symptoms known as:-
- A. Stage of susceptibility
 - B. Subclinical stage of disease
 - C. Stage of clinical disease
 - D. Stage of disability

SECTION II: SHORT ANSWER QUESTIONS (30 MARKS)

21. Describe the components of epidemiological triad indicating the outcomes of the interaction of the elements (5 Marks).
22. Explain the five (5) stages of the demographic cycle (5 Marks).
23. Explain the three (3) phases of clinical manifestations of rabies (3 Marks)
24. Describe any two (2) case definitions of tuberculosis (2 Marks).
25. Using a diagram explain the life cycle of filariasis (5 Marks).
26. Explain the three (3) transmission cycles of yellow fever indicating the mosquito species in each cycle (5 Marks).
27. Explain the specific prevention and control measures for poliomyelitis (5 Marks).

SECTION III: LONG ANSWER QUESTIONS (20 MARKS)

28. Measles is a highly contagious disease caused by a virus. It spreads easily when an infected person breathes, coughs or sneezes. It can cause severe disease, complications, and even death.
 - a) Explain the clinical case definition of measles (2marks).
 - b) Describe the three (3) classification of measles (3 marks).
 - c) Explain the pathophysiology of measles (5 marks).
 - d) Explain five(5) specific the prevention and control measures for measles(10 marks)