Technical University of Mombasa

Faculty of Applied and Health Sciences

DEPARTMENT OF MEDICAL SCIENCES

UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF MEDICAL LABORATORY SCIENCES

BMLS 12S (Mid entry)

AML 4451: EPIDEMIOLOGY

SPECIAL/SUPPLEMENTARY EXAMINATION

OCTOBER 2013 SERIES   2 HOURS

Instructions to candidates:

This paper consist of **TWO** sections A and **B**
Section A –Contains MCQS, any wrong response will be penalised. Answer **ALL** questions in **Section B**.

SECTION A – MCQs – (30marks)

1. Which of the following is an example of a communicable disease?
    a) Diabetes mellitus
    b) Coronary heart disease
    c) Hypertension
    d) Cholera
    e) Breast cancer

2. Which of the following is a component of the epidemiologic triad?
    a) Time
    b) Place
    c) Host
    d) Person
    e) Disease

3. Factors contributing to emergence of infectious diseases include the following except
   a) Human demographic and behavior
   b) Economic development and land use
   c) Disease surveillance
   d) Break down of public health measures
   e) Morital status

4. Which of the following describes a determinant as used in the definition of epidemiology?
   a) Are the factors that influence the occurrence of health-related events
   b) The occurrence of health-related events by time, place and person
   c) Anything threat affects the well-being of a population
   d) Time during which the host can infect another host
   e) Host of an infectious disease

5. The following methods are part of the basic epidemiologic methods except
   a) Count cases (events)
   b) Define involved population
   c) Field investigation
   d) Make inferences
   e) Compare rates

6. The following are key words in the definition of epidemiology except?
   a) Surveillance
   b) Distribution
   c) Study
   d) Application
   e) Determinant E

7. Who among the following people is considered the father of field epidemiology?
   a) William Farr
   b) John Snow
   c) John Graunt
   d) David Livingstone
   e) Hippocrates

8. Which one of the following terms describes a sudden increase in the number of cases of a disease above what is normally expected
   a) Epidemic
   b) Pandemic
   c) Cluster
   d) Endemic
   e) Sporadic

9. An aggregation of cases grouped in place and time
    a) Epidemic
    b) Pandemic
    c) Cluster
    d) Endemic
    e) Outbreak

10. _____ refers to a disease that occurs infrequently and irregularly
    a) Cluster
    b) Sporadic
    c) Endemic
    d) Epidemic
    e) Pandemic

11. _____ Refers to the amount of a particular disease that is usually present in a community
    a) Cluster
    b) Sporadic
    c) Endemic
    d) Epidemic
    e) Pandemia

12. The following terms are among the host factors in the epidemiologic triad except
    a) Genetic makeup
    b) Physical trauma
    c) Gender
    d) Age
    e) Race

13. The following terms include the environmental factors influencing the exposure of a host to disease causative agents except.
    a) Population density
    b) Life style
    c) Socioeconomic factors
    d) Weather
    e) Climate

14. The following terms include the agent factors influencing the development of a health-related event except
    a) Physical forces
    b) Pathogenicity
    c) Religion
    d) Nutrition
    e) Radiation

15. Which one of the following disease is an example of a zoonotic disease?
    a) Malaria
    b) Plaque
    c) Cholera
    d) Syphilis
    e) Arthritis

16. Which of the following is not a characteristic of a non communicable disease
    a) Uncertain etiology
    b) Multiple risk factors
    c) Long latency period
    d) Etiological factors are microorganism
    e) Incurability

17. Which of the following is an example of a non modifiable risk factor for coronary heart disease?
    a) Male sex
    b) Diet high in saturated fatty acids and cholesterol
    c) Hypertension
    d) Physical inactivity
    e) Alcohol intake

18. Which of the following are non modifiable risk factors for diabetes mellitus ?
    a) Diet – high in cholesterol
    b) Male sex
    c) Alcohol intake
    d) Genetic factors
    e) Physical inactivity

19. Which of the following terms describes the time from infection to development of symptomatic disease
    a) Incubation period
    b) Symptomatic period
    c) Latent period
    d) Infectious period
    e) Hibernation

20. Which of the following terms describes the time interval from infection to development of infectiousness.
    a) Incubation period
    b) Symptomatic period
    c) Latent period
    d) Infectious period
    e) Hibernation

21. Which of the following is an example of an intervention study design
    a) Clinical trial
    b) Cohort study
    c) Case control study
    d) Cross sectional study
    e) Case series

22. Which of the following is an example of a descriptive study design
    a) Clinical trial
    b) Cohort study
    c) Case control study
    d) Cross sectional study
    e) None of the above

23. Which of the following disease has the human host as a reservoir of its causative agent
    a) HIV/AIDs
    b) Diabetes mellitus
    c) Cholera
    d) Plaque
    e) Arthritis

24. Which of the following study designs selects individuals on the basis of disease status
    a) Clinical trial
    b) Cohort study
    c) Case control study
    d) Cross sectional study

25. Which of the following diseases has the environment as a reservoir of its causative agent
    a) HIV/AIDS
    b) Diabetes mellitus
    c) Cholera
    d) Sickle cell anaemia
    e) Thallasemia

26. Which of the following study designs selects individuals on the basis of disease status
    a) Clinical trial
    b) Cohort study
    c) Case control study
    d) Cross sectional study
    e) Case series

27. Which study design provides a "snapshot" of health experience
    a) Clinical trail
    b) Cohort study
    c) Case control study
    d) Cross sectional study
    e) Case series

28. Which of the following are advantages of case control studies
    a) Is relatively quick
    b) Is inexpensive compared with other analytic designs
    c) Is particularly well –suited to the evaluation of diseases with long latent periods
    d) Is of particular value when exposure is rare
    e) None of the above

29. The following include steps in outbreak investigation except
    a) Verify diagnosis
    b) Define a case
    c) Develop hypothesis
    d) Prepare a report
    e) Design drugs for treatment

30. The following are objectives of outbreak investigation except
    a) To control ongoing outbreaks
    b) To present future outbreaks
    c) To advance knowledge about a disease
    d) To provide training opportunities
    e) None of the above

SECTION B

1. a) Define prevalence **(2marks)**

   b) List the factors that can increase prevalence **(8marks)**

   c) Describe the following functions of epidemiology

       (i) Public health surveillance **(5marks)**

       (ii) Field investigation **(5marks)**

2. a) Describe the chain of infection **(6marks)**

   b) Using relevant examples, describe the modes of infection disease transmission under the following headings

       (i) Direct **(5marks)**

       (ii) Indirect **(9marks)**