

**UNIVERSITY OF NAIROBI****BACHELOR OF MEDICINE AND BACHELOR OF SURGERY CONTINUOUS  
ASSESSMENT TEST****COMMUNITY HEALTH**DATE: 24<sup>TH</sup> MARCH, 2006

TIME: 14 00 – 16 00 HRS

**INSTRUCTIONS**

1. Read the instructions carefully.
2. This paper contains **120 MULTIPLE ANSWER QUESTIONS**
3.  **Circle the correct answer**

- A 1. At which point in a communicable disease process is the agent most vulnerable?
- (a) Reservoir ✓
  - (b) Exit from reservoir ×
  - (c) Transmission**
  - (d) Entry into host ×
  - (e) Agent in the host ×
- c 2. Currently the most effective measure in the control of malaria is:
- (a) Chemotherapy ×
  - (b) Chemo prophylaxis ×
  - (c) Proper use of ITNs** ✓
  - (d) Environmental sanitation
  - (e) Vaccination ×
- B 3. Leishmaniasis in Kenya is all of the following except:
- (a) *Phlebotomus martini* is the intermediate host T
  - (b) Can be an occupational hazard F**
  - (c) The dog is the reservoir T
  - (d) Is related to termite hills T
  - (e) There is effective chemotherapy T

- E 4. Factors in transmission of Schistosomiasis include the following except:
- (a) Water contact for domestic purposes
  - (b) Water contact for economic purposes
  - (c) Contamination of the water
  - (d) Presence of snails in the water
  - (e) Drinking contaminated water F**
- D 5. Helminthic infections can be prevented by all of the following except:
- (a) Proper human waste disposal T
  - (b) Good personal hygiene T
  - (c) Wearing shoes
  - (d) Chemoprophylaxis ✓**
  - (e) Hygiene in public places T
- C 6. All of the following are true of transmission of diarrhoeal diseases except:
- (a) Water may be an important reservoir T
  - (b) Food may be an important vehicle T
  - (c) The housefly is an important intermediate host F ✓**
  - (d) Fingers may be important T
  - (e) Food handlers may be important reservoir T
- B 7. Zoonoses is all of the following except:
- (a) Principally diseases of animals
  - (b) Principally diseases of humans T ✓**
  - (c) Can cause epidemics
  - (d) Can cause epizootics
  - (e) May follow environmental degradation
- B 8. Viral haemorrhagic fevers are all of the following except:
- (a) Human contact is a principle method of transmission
  - (b) All have known reservoirs F**
  - (c) Management is principally supportive T
  - (d) May present a special hazard to health workers T
  - (e) May be occupational hazards T

- D 9. The following is true of Viral Hepatitis except:
- (a) Faeco-oral transmission T *"vowels are bowels"*
  - (b) Parenterall transmission T
  - (c) May lead to hepatocellular carcinoma T
  - (d) Effective vaccines are available for all types** F *no for c d and e*
  - (e) Principally a human infection T
- B 10. Meningococcal meningitis is all of the following except:
- (a) Cause epidemics T *crowded places*
  - (b) Animal reservoirs are important in maintenance** F
  - (c) Transmission is by droplet spread T *yepppp*
  - (d) 'Oily' chloramphenicol (Tifomycin) has a role. T *there is a role Given for 5 days. as effective as penicillin*
  - (e) Vaccinations are important T *yes important*
- C 11. The following is true of Tuberculosis except:
- (a) Prolonged close contact is important for transmission T *yes*
  - (b) HIV infection is a risk factor for development of TB disease T *yes*
  - (c) Short-course chemotherapy plus DOTS regimens are recommended** ✓
  - (d) Stigma is a principal obstacle to effective prevention T *yes*
  - (e) BCG should not be given to children with HIV T *dont give im active*
- B 12. The statement that "economics stems from the inescapable concept of Scarcity" means that:
- (a) Economists have their own language
  - (b) Every one and every system has more needs than the available resources to meet them** ✓
  - (c) Markets always have shortages of goods and services F
  - (d) The health sector inputs are sometimes missing
  - (e) Shortages in delivery of health care are inevitable
- C 13. The main actors in an economic system are generally categorized as:
- (a) Government, Ministry of Health, the traditional sector and Donors
  - (b) Government, industrial sector, public service and the rural populations
  - (c) Producers, consumers and government** ✓
  - (d) Donors, government, industrialists, populations at large
  - (e) Investors, social services sector, Ministry of Health

14. National Accounts contribution of the health sector is assessed by:
- (a) Adding up the monetary value of services and commodities that are produced by individuals and institutions in the sector during the year of accounting
  - (b) Costing all the diseases that have been treated during the year of accounting
  - (c) Adding up all the salaries of the medical personnel
  - (d) The value of budgetary allocation by the Ministry of Finance
  - (e) The value of budgetary allocation by Ministry of Finance plus donor funding
15. In a production process of goods or services marginal costs refer to:
- (a) Costs of inputs in a production process
  - (b) Costs each item of output → *average cost*
  - (c) Cost of producing an extra item of output
  - (d) Costs of distributing the product to the consumers
  - (e) Increase in management allowances for raising the profit margin
- a. 16. In the public health sector, cost sharing was introduced for two main purposes:
- (a) To generate revenue and control frivolous demand for services
  - (b) To raise salaries for health workers and introduce community participation
  - (c) To increase quality of care and improve management of public institutions
  - (d) To excuse the government from paying for primary health care and transfer the responsibility to the community.
  - (e) To buy drugs and generate overtime payment for workers who stay late in the hospitals.
- c. 17. The concept of Consumer Ignorance in the use of health care refers to:
- (a) Situation where patients do not know the doctors and nurses who provide them with care
  - (b) The patients have very low levels of education
  - (c) The patients do not fully know the type, amount or quality of care that they may be looking for
  - (d) Situation where households are not known to the providers of care
  - (e) The fact that health care providers may not be willing to share information with the patients.

18. In HACCP terms, critical control point means
- (a) Any point in a specific food system at which loss of control does not result to unacceptable health risk
  - (b) A point at which loss of control may result in an acceptable health risk
  - (c) Failure to meet a required critical limit for a critical control point
  - (d) The maximum or minimum value to which a hazard must be controlled to minimize the risk**
  - (e) A point at which chemical and physical hazards are controlled
19. Prior to handling food and after use of toilet it is mandatory to washing hands with water and soap because:
- (a) The soap contains active ingredients
  - (b) The soap has bacteriocidal properties
  - (c) The soap has hydroxide peroxide
  - (d) The soap has sanitizing properties ✓**
  - (e) The water has residual effect ✗
20. In a conventional water treatment works, the sequential procedure is as follows:
- (a) Coagulation, sedimentation, chlorination and filtration ✗
  - (b) Sedimentation, coagulation chlorination and filtration ✗
  - (c) Coagulation, sedimentation, filtration, chlorination ✓**
  - (d) Filtration, sedimentation, coagulation and chlorination ✗
  - (e) Chlorination, coagulation, filtration and addition of alum ✗
21. Which of the following agrochemical is known to inhibit acetylcholinesterase?
- (a) Dieldrin
  - (b) Malathion ✓**
  - (c) Methylbromide
  - (d) Sevin
  - (e) Pyrethroid
- organophosphates*

22. In food hygiene practice perishable foods should be kept out of danger zone temperature which is:
- (a) Below 10°C or above 45°C
  - (b) Above 60°C or below 4°C
  - (c) Above 60°C or below 7°C
  - (d) Below 7°C or above 37°C
  - (e) Below 0°C or above 45°C
23. Biological oxygen demand is an indication of:
- (a) number of micro-organisms in 100ml of water
  - (b) amount of biodegradable organic matter in an effluent
  - (c) amount of oxygen required by aquatic organisms
  - (d) amount of sewage drained into a river
  - (e) Amount of faecal matter in an effluent.
24. All of the following are true about VIP pit latrines except:
- (a) Has reduced smell
  - (b) Has a flue pipe
  - (c) Has reduced fly nuisance
  - (d) Easy to use
  - (e) The cheapest of all types of latrines
25. Which of the following is the correct series of stabilization pond system?
- (a) Anaerobic, facultative, maturation
  - (b) Facultative, Anaerobic, maturation
  - (c) Anaerobic, , maturation, Facultative,
  - (d) Aerobic , maturation, facultative
  - (e) Maturation, aerobic, in-aerobic
26. The major gaseous element involved in ozone depletion is:
- (a) carbon
  - (b) chlorine
  - (c) fluorine
  - (d) bromine
  - (e) sulphur

27. All of the following are associated with the London smog of 1952 except:
- (a) death of more than 4000 people T
  - (b) mortality was mainly due to respiratory symptoms T
  - (c) mortality was mainly among the young and the aged T
  - (d) Nitrogen dioxide and sulphur were main causes of death
  - (e) Meteorological phenomenon was the primary cause of the smog T
28. All of the following are true about acid rain except:
- (a) Caused by emissions of sulphur dioxide to the atmosphere
  - (b) Causes die back disease of forest
  - (c) May contribute to global warming
  - (d) Decreases productivity of rivers and lakes
  - (e) May influence absorption of toxic metals through the food chain.
29. Which among the following is not a health management concern:
- (a) Inequitable distribution of health resources, with the minority receiving the highest proportion. T
  - (b) Hospital-based curative services requiring highly trained personnel and expensive equipment have received the greatest amount of attention sidelining preventive care services. T
  - (c) Efficient and effective expanded programme on immunisation. F
  - (d) Lack of intersectoral collaboration in planning and implementation of health programs. T
  - (e) Lack/minimal community involvement at different levels. T
30. Supervision entails all the following except:
- (a) Setting realistic goals;
  - (b) Assist staff to meet their goals.
  - (c) Identify training needs for staff.
  - (d) Reprimanding those who do not perform well in their work.
  - (e) Enhance personal development especially confidence

31. Which among the following is not a correct description of an organization?
- (a) Mechanisms for distributing tasks.
  - (b) Establishing departments.
  - (c) Giving instructions to a group of workers.
  - (d) Centralising or decentralizing activities.
  - (e) Determining the extents to which individual responsibilities overlap.
32. Which among the following is not a major dissatisfier in work situation according to Herzberg's two factor theory?
- (a) Presence of a code of conduct for workers.
  - (b) Supervision
  - (c) Interpersonal relations
  - (d) Additional responsibility
  - (e) Working conditions.
33. While delegating, a manager require to do the following except:
- (a) Give support as needed and follow up the progress of work
  - (b) Be clear about exactly what is delegated.
  - (c) Select the person who you are sure can do the work.
  - (d) Give support as needed and follow up the progress of work.
  - (e) Absolve him/her from all the mistakes that occur.
34. Regarding the different types of evaluation, which of the following statements are true?
- (a) Summative evaluation assesses the situation before a project begins
  - (b) Summative evaluation involves the preparation of checklists and meetings to determine progress
  - (c) Formative evaluation assesses the plans for a project and helps determine whether the program is appropriate for the assessed needs
  - (d) In primary healthcare, assessing quality of care is an example of formative evaluation
  - (e) All of the above



35. The following are examples of useful activities in monitoring the success of implementation of a malaria control program except:
- (a) Visiting health centres to ascertain how patients with malaria are treated
  - (b) Analyzing reports of total area of bush cleared
  - (c) Setting up boxes to collect complaints from patients
  - (d) Performing a cost benefit analysis of different drugs used to treat malaria
  - (e) Assessing prescriber compliance to established treatment protocols

A 36. In planning for a health activity such as "Eliminate Polio Campaign", the correct sequence of steps to be taken is?

- (a) Situation analysis, prioritization, implementation, evaluation ✓
- (b) Prioritisation, Situation analysis, monitoring, implementation
- (c) Situation analysis, prioritization, evaluation, implementation
- (d) None of the above
- (e) Implementation, monitoring, evaluation ×

37. Adequate and timely data is key to good health planning. The following are examples of sources of data that are commonly used for planning in Kenya except:

- (a) Census T
- (b) Hospital morbidity data T
- (c) Sentinel sites
- (d) Registration of births/deaths T
- (e) Mass screening exercises e.g. breast cancer awareness week

38. Which of the following statements are true?

- (a) Strategic goals are set by middle management
- (b) Operational goals are set by lower management and determine priorities of an organization
- (c) Strategic goals to be effective must specify resources and time frames
- (d) Tactical goals are usually developed by top management to determine how to implement a strategic plan
- (e) Tactical goals are usually developed by middle management to determine how to implement a strategic plan

39. Which of the following statements are true?

- (a) Kenya Expanded Immunization Program (KEPI) is a good example of a successful health project
- (b) Kenya Expanded Immunization Program (KEPI) is a good example of a health policy**
- (c) The way in which nurses take care of the vaccines after the vaccine is removed from the fridge is determined by the rules and regulations of KEPI
- (d) The way in which nurses take care of the vaccines after the vaccine is removed from the fridge is determined by the standard operating procedures of KEPI
- (e) None of the above

40. One of the following statements is a gender- based health condition:

- (a) Most of the causative factors to maternal morbidity and mortality are biological
- (b) Complications in delivery are often due to maternal age
- (c) Wife is blamed for childlessness even when husband has poor sperm count ✓**
- (d) Maternal malnutrition is sometimes responsible for obstructed labour
- (e) Poor access to specialized health services causes delay in health care seeking

41. Community participation is often misconstrued to mean the following **except:**

- (a) Preaching at the local church
- (b) Contributions towards repairs of the bridge at the village**
- (c) Attending burial of the local chief's cousin
- (d) Donating old clothes to the very poor
- (e) Feeding the Orphans and vulnerable children

ε 42. Community Health Workers (CHWs) are recognized as important resources in all the following except:

- (a) Community Health Education
- (b) Facilitating for referrals
- (c) Community drug distribution
- (d) Identifying and working with opinion leaders
- (e) Specialized health service provision ✓**

43. Socialization as best described as a process through which:
- (a) A life long process of indoctrination until he has no option but to comply
  - (b) Starting long before birth it continues through death into eternity
  - (c) An individual is brought up to identify with his/her cultural background ✓
  - (d) A two way highway where traffic do not meet
  - (e) Acculturation takes place
44. The concept of gender includes all the following except:
- (a) It is a social and cultural construct
  - (b) It deals exclusively with feminine rights F ✓
  - (c) It involves decision-making against labour contribution
  - (d) Access and control profile is an important indicator of who owns what
  - (e) It is all about relationships between men and women
45. Community Participation is misconstrued to refer to all the following except:
- (a) Contributions towards repairing the bridge across the village
  - (b) Donating old garments to the poorest of the poor
  - (c) Attending the burial of the chief's cousin
  - (d) Preaching at the local house of worship
  - (e) Feeding orphans and vulnerable children
46. Community Health Workers are an important resource in all the following areas except:
- (a) Community health education
  - (b) Community drug distribution
  - (c) Identifying and working with opinions leaders
  - (d) Provision of specialized health services ✓
  - (e) Facilitation for referrals
47. All the following were among the original elements of Primary Health Care except:
- (a) Expanded child immunization programme T
  - (b) Provision of aspirins as essential drugs T
  - (c) Management of STI/HIV/AIDS related opportunistic morbidity T
  - (d) Provision of portable drinking water and sanitation T
  - (e) Collaboration with the local health facility ✓

48. All the following are correct definitions of Primary Health Care except:
- (a) Accessible health care sustainable through community effort
  - (b) Community Health Workers are subject to the local chief F ✓**
  - (c) Affordable to all members of the community
  - (d) Acceptable health care through community doing things for themselves
  - (e) Essential health care availed to all
49. Patient Education is vital including all the following except:
- (a) Clarify issue specific to the health problem.
  - (b) Giving the patient written information for re-enforcement
  - (c) Withdrawing sensitive issues specific to health problem ✓**
  - (d) Making the patient repeat important instructions.
  - (e) Putting him/her next to a recovering patient for role modeling.
50. When preparing and using demonstration for health education purposes, the educator should make sure the demonstrations have which of the following characteristics?
- (a) The demonstration should last for a short time.
  - (b) The demonstration should be target population specific
  - (c) The demonstration should not involve the audience.
  - (d) The demonstration should capture the attention of the audience.
  - (e) b) and d) ✓**
- 51.** Which of the following practices best describes safer sex in HIV/AIDS education?
- (a) Use of only one brand of condoms ✕
  - (b) Use a condom when you are suspicious of your partner. ✕
  - (c) Sticking to one sexual partner at a time ✓
  - (d) Changing a condom should it burst during sexual intercourse. ✓
  - (e) Mutual monogamous relationship with uninfected partner. ✕
52. All of the following concerning HIV transmissions are correct **except:**
- (a) HIV is more efficiently transmitted through vaginal fluid and semen.
  - (b) HIV cannot be transmitted through saliva
  - (c) Breast milk is not protective against HIV
  - (d) Gonorrhoea is a risk factor for HIV transmission.
  - (e) There is difference in HIV transmission between male/female aged between 15-19 years.**

53. Which of the following statements is correct?

- (a) 2,000,000 (million) cases of malaria are reported every year globally
- (b) 50,000 (thousands) cases of malaria are reported every year globally
- (c) 1,200,000 (millions) cases of malaria are reported every year globally
- (d) 300,000,000(millions) cases of malaria are reported every year globally
- (e) 1,000,000 (million) cases of malaria are reported every year globally.

54. The following should be done to roll back malaria except:

- (a) Rapid diagnosis
- (b) Wait until multiple prevention activities are put in place ✓
- (c) Focused research
- (d) Making evidence based decisions
- (e) Dynamic global movement.

55. Secondary prevention means none of the following except:

- (a) Polio vaccine is termed as secondary prevention
- (b) Prompt treatment of gonorrhoea ✓
- (c) Wearing sit belts
- (d) Better housing to prevent streptococcal throat infection
- (e) Using mosquito nets.

56. Behaviour that maintains health is all of the following except:

- (a) Balancing eating habits
- (b) Avoiding habitual drinking
- (c) Checking height if you are 30 years old ✓
- (d) Sticking to monogamous sexual relationship
- (e) Jogging every other day.

57. The demographic rationale for emphasis on MCH services in Kenya is that:

- (a) The population pyramid for Kenya is different from that of the rest of the developing world. ✗
- (b) The youth make up 50% of the population.
- (c) The Total Fertility Rate in Kenya is declining.
- (d) Females in the reproductive and under-fives make up 40% of the population.
- (e) Women and children are a marginalized population in African societies.

58. Most causes of maternal and child morbidity and mortality are preventable through the following interventions except:
- (a) health education
  - (b) improved home environment
  - (c) management of high risk cases at home ✓
  - (d) early treatment
  - (e) use of MCH services
59. Which of the following statements is untrue?
- (a) The risk of dying in the first year of life is about 15 times higher in the developing countries compared to the developed ones.
  - (b) Risk of dying between ages 1 and 5 years of life is about two times higher than that of the first year of life.
  - (c) The under-five mortality rate is a measure of the risk of a child dying before the fifth birthday.
  - (d) Risk of a maternal death is about 100 times higher in the developing countries compared to the developed ones.
  - (e) The maternal mortality rate in Kenya in 1998 was 590 per 100,000 live deaths.
60. Which of the following Millenium Development Goals (MDG) Targets is wrongly worded?
- (a) Provide access to affordable and essential drugs
  - (b) Stop HIV/AIDS transmission before 2015; start reducing it.
  - (c) Reduce Maternal Mortality by  $\frac{3}{4}$  in 2015 compared with 1990
  - (d) Reduce Infant Mortality by  $\frac{2}{3}$  in 2015 compared with 1990
  - (e) Reduce % of people with hunger with 50% compared to 1990.
61. Which of the following is not an indicator of the MDG "Combat HIV/AIDS, Malaria and other diseases"?
- (a) % pop using malaria prophylaxis
  - (b) % HIV infected among pregnant women 15-24 years.
  - (c) % of orphans due to AIDS
  - (d) Measles Vaccination < 1 yr
  - (e) TB Detection and Cure Rate

62. Intermediate determinants of maternal morbidity and mortality include all the following except:
- (a) health seeking behaviour
  - (b) unknown factors
  - (c) obstetric complications
  - (d) health status of the mother
  - (e) reproductive status of the mother
63. In line with the goal of making Maternal and Child Health services available, the program aims to:
- (a) increase access to within one kilometre
  - (b) substitute static health facilities with mobile and community based services
  - (c) reduce waiting time to within 30 minutes
  - (d) deploy doctors to health facilities
  - (e) train mothers on social and cultural taboos
64. Which of the following is not an intermediate determinant of child health?
- (a) constitution at birth
  - (b) malnutrition ✓
  - (c) exposure
  - (d) susceptibility
  - (e) health care
65. All the following work environments except: one are associated with increased risk of infection:
- (a) Medical laboratory ✓
  - (b) Chemical processing factory
  - (c) Animal laboratory ✓
  - (d) Laundry room
  - (e) Abattoirs

66. Stress at work may result from exposure to any or all of the following except:
- (a) Too many tasks assigned to an individual. ✓
  - (b) None conducive working social environment. ✓
  - (c) Having no job description. ✓
  - (d) Prolonged working hours without reward. ✓
  - (e) Having occasional assistance in any difficult tasks. ✗
67. One of the following statements is true about occupational diseases/conditions:
- (a) Non-ionizing radiation with long wavelength of spectrum and can cause leukemia.
  - (b) Mesothelioma and pneumonitis is caused by exposure to asbestos fibre ✓
  - (c) Bysinosis and asbestosis are classical examples of pneumoconiosis diseases.
  - (d) Farmers' lung disease is caused by brucella organism.
  - (e) Carpal tunnel syndrome is common among firefighters.
68. Which of the following Acts is made/designed to ensure safety and healthy work environment?
- (a) Act Cap. 145
  - (b) Act Cap. 541
  - (c) Act Cap. 514
  - (d) Act Cap. 415
  - (e) Act Cap. 214
69. The highest noise levels acceptable by the World Health organization in reference to noise induced hearing loss is:
- (a) 75 dB
  - (b) 85dB
  - (c) 95 dB
  - (d) 45 dB
  - (e) 60 dB



70. All of the following are true about industrial toxicity except:

- (a) Influenced by individuals health status
- (b) influenced by age
- (c) All toxic chemicals have NOEL
- (d) Toxicity is a function of contact duration
- (e) toxicity is a function of chemical concentration

71. The maximum blood lead level acceptable by WHO in adults is:

- (a)  $4\mu\text{g}/100\text{ml}$
- (b)  $400\mu\text{g}/100\text{ml}$
- (c)  $40\mu\text{g}/100\text{ml}$
- (d)  $0.4\mu\text{g}/100\text{ml}$
- (e)  $0.004\mu\text{g}/100\text{ml}$

72. Which of the following diseases was discovered among stone cutters in 5<sup>th</sup> century?

- (a) Encaphalopathy
- (b) Lead poisoning
- (c) Anaemia
- (d) Pneumoconiosis
- (e) Byssinosis

73. Health and illness are conditions defined:

- (a) In systemic terms ✓
- (b) In cultural terms
- (c) As witchcraft
- (d) As natural to man
- (e) As supernatural occurrences

74. The health system in Kenya is characterized by:

- (a) Medical pluralism ✓
- (b) Modern medicine
- (c) Predominance of traditional medical practices
- (d) Primary health care
- (e) Traditional healers

75. The sick role can be described as:
- (a) Obligations and expectations of the patient
  - (b) The condition of being sick
  - (c) Resting during late pregnancy
  - (d) Limited to a given period of time
  - (e) Played by women only
76. The major differences between the anthropological and biomedical models of health is that:
- (a) One is predominantly personalistic while the other is largely systemic and naturalistic
  - (b) Anthropological models are irrational
  - (c) Biomedical models are only applicable in specific situations
  - (d) Anthropological models are limited to African situations
  - (e) Each is only applicable in particular settings
77. Traditional practices are best understood:
- (a) Contextually
  - (b) As harmful to the community health
  - (c) As witchcraft
  - (d) As a way of revisiting modern practices
  - (e) As primitivity
78. Food consumption is not wholly based on what is available in the environment because of:
- (a) Fear of food poisoning
  - (b) Cultural meaning and edibility
  - (c) Ignorance
  - (d) Limited availability
  - (e) Cultural adaptation
79. Community participation is important:
- (a) For establishing project ownership and empowerment
  - (b) As it averts ignorance
  - (c) As it is cheap for the project
  - (d) As a requirement for PHC.
  - (e) As a demonstration of the government's commitment.

80. Traditional health providers:

- (a) Are all are witch doctors
- (b) Have differentiated roles
- (c) Operate in secrecy
- (d) Are formally trained
- (e) Their skills are inherited

81. In a study of a disease in which all cases that developed were ascertained, if the relative risk for the association between a factor and the disease is less than 1.0 then:

- (a) There is no association between the factor and the disease.
- (b) The factor protects against development of the disease.
- (c) The comparison group used was unsuitable.
- (d) There is a positive association between the factor and the disease.
- (e) Both b and d above are correct.

82. A test suitable for screening should be:

- (a) Inexpensive
- (b) Able to give results in a short time.
- (c) Acceptable to the subjects being screened.
- (d) (a) and (c) above.
- (e) (a), (b), and (c) above.

83. Endemic means that a disease:

- (a) Occurs clearly in excess of normal expectancy.
- (b) Exhibits a seasonal pattern.
- (c) Is prevalent among insects.
- (d) Affects a large number of countries simultaneously.
- (e) Is habitually present in human populations at the same level.

84. Which of the following is **not** an advantage of a prospective cohort study?

- (a) Many disease outcomes can be studied simultaneously.
- (b) Recall bias is minimized compared to a case-control study.
- (c) Loss to follow-up of the study subjects is not a problem.
- (d) Exposure can be measured precisely.
- (e) Incidence rates can be determined.

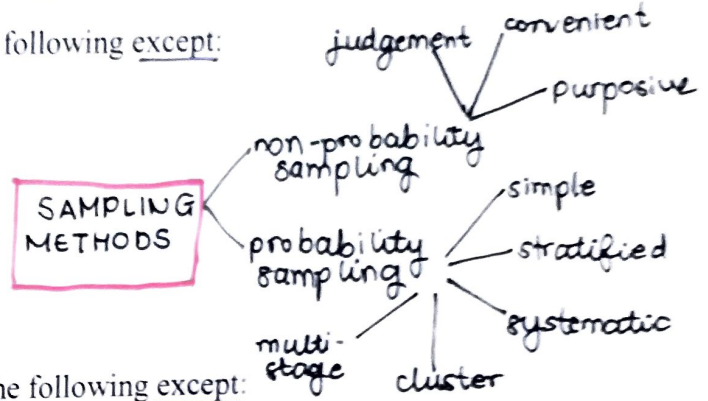
85. Subjects were children enrolled in a health maintenance organization. At 18 months each child was randomly given one of two types of vaccine against *Haemophilus influenzae*. Parents were asked to record any side effects on a card, and mail it back after two weeks. This was a(n):
- (a) Case-control study.
  - (b) Experimental study.
  - (c) Cross-sectional study.
  - (d) Cohort study.
  - (e) Survey.
86. Measures of disease occurrence include the following except:
- (a) Cumulative incidence rate.
  - (b) Prevalence rate.
  - (c) Attack rate.
  - (d) Sensitivity.
  - (e) Incidence density.
87. Which of the following is the correct sequence of events in the natural history of a disease?
- (a) Susceptibility stage, Sub-clinical stage, Clinical stage, Disability stage.
  - (b) Clinical stage, Susceptibility stage, Sub-clinical stage, Disability stage.
  - (c) Susceptibility stage, Sub-clinical stage, Disability stage, Clinical stage.
  - (d) Susceptibility stage, Clinical stage, Sub-clinical stage, Disability stage.
  - (e) Susceptibility stage, Disability stage, Sub-clinical stage, Clinical stage.
88. The important dimensions of Descriptive epidemiology include:
- (a) Age, sex, and occupation.
  - (b) Time, Season, and Person.
  - (c) Time, Place and Person.
  - (d) Place, Residence and Age.
  - (e) Marital status, race and age.

89. Which of the following are the main classifications of disease determinants?

- (a) Agent and Environmental factors.
- (b) Host and Agent factors.
- (c) Time, Place and Person.
- (d) Host and Environmental factors.
- (e) Host, Agent and Environmental factors.

A 90. Probability sampling methods include the following except:

- (a) Convenience sampling. F ✓
- (b) Cluster sampling. T
- (c) Stratified random sampling. T
- (d) Multi-stage sampling. T
- (e) Systematic sampling. T



B 91. Epidemiologic methods may be used for the following except:

- (a) Determining the distribution of diseases in the population. T
- (b) Determining the blood pressures of patients. ✗
- (c) Evaluating the effectiveness of preventive measures. T
- (d) Identifying disease determinants. T
- (e) Determining the health needs of the population. T

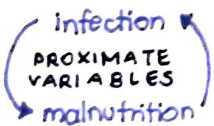
B 92. Which of the following indices would best help in assessing chronic nutrition problems in a community?

- (a) Weight for height F
- (b) Height for age T ✓
- (c) Mid-upper circumference F
- (d) Weight for age F
- (e) Skin food thickness F

↳ stunting (height-for-age)  
wasting: weight-for-height  
underweight: weight-for-age

A 93. Which of the following are the principal and immediate causes of childhood malnutrition in Kenya?

- (a) Inadequate food intake, diseases T ✓
- (b) Poor agricultural policies, inadequate land F distant
- (c) Household food insecurity, inaccessible health facilities F distant
- (d) Poverty, disease F
- (e) High population growth rate, poverty F distant



A 98. Exclusive breastfeeding refers to:

- (a) Feeding an infant on breastmilk and mineral or vitamin drops (if necessary) until the age of 4-6 months. **F** **T** ✓
- (b) Feeding an infant breastmilk and plain water only until the age of 4-6 months. **F**
- (c) Feeding an infant on breastmilk and cows milk only until the age of 4-6 months. **F**
- (d) Feeding an infant on breastmilk and acceptable herbal solutions only until the age of 4-6 months. **F**
- (e) Feeding an infant on breastmilk and sugar water only until the age of 4-6 months. **F**

E 99. Which of the following is not a nutritional disorder of public health significance in sub-Saharan Africa?

- (a) Anaemia **T**
- (b) Protein Energy malnutrition **T**
- (c) Iodine deficiency disorders **T**
- (d) Vitamin a deficiency **T**
- (e) Pellagra ✓

100. In assessment of PEM, the nutritional status indicator typically with the highest prevalence in community nutritional surveys is:

- (a) Wasting
- (b) Underweight
- (c) BMI among men < 50 years
- (d) Stunting
- (e) MUAC – wasting

B 101. Assessment of dietary intake practices in a rural community in Kenya could be undertaken using all the following except:

- (a) Keeping of food records **T**
- (b) Conducting 48 hour dietary recall **F** ✓
- (c) Conducting 24 hour dietary recall **T**
- (d) Using a food frequency questionnaire **T**
- (e) Conducting household observations **T**

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- (a) Feeding an infant on breastmilk and mineral or vitamin drops (if necessary) until the age of 4-6 months. **T** ✓
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C 102. According to 2003 Kenya Demographic and Health Survey, which of the following answers gives the correct infant mortality rate (IMR) and under five mortality rate (U5MR)?

	<u>IMR 1000/YR</u>	<u>U5MR 1000/YR</u>
(a)	54	200
(b)	61	150
<b>(c)</b>	<b>77</b>	<b>115</b> ✓
(d)	96	89
(e)	112	70

IMR =  $\frac{\text{deaths of infants } < 1 \text{ yr of age}}{\text{live births in a yr}} \times 1000$   
 39 deaths / 1000 live births

U5MR =  $\frac{\text{deaths of children under-5 in a given yr}}{\text{live births in a given year}} \times 1000$   
 52 deaths / 1000 live births

D 103. Births in a year x 1000

Pop. of women aged 15-49 yrs in a year

The above rate/ratio is referred to as:

- (a) Age specific birth rate F
- (b) Crude fertility rate F
- (c) Total fertility rate F  $\rightarrow \frac{\sum ASBR}{1000} \times 5$
- (d) General fertility rate T** ✓
- (e) Child-woman ratio F  $\frac{\text{children 0-4yrs}}{\text{♀ aged 15-49yrs}} \times 100$

$\frac{\text{births in a yr} \times 1000}{\text{pop. at mid-yr}}$  ←

D 104. Total fertility rate in Kenya is currently estimated to be: **Currently: 3.9 births per woman**

- (a) 8.1 children per woman x 1967
- (b) 6.7 children per woman
- (c) 5.41 children per woman
- (d) 4.9 children per woman** ✓ (KDHS 2003/04)
- (e) 3.7 children per woman

B 105. The term "fertility" is used by demographers to denote:

- (a) The crude birth rate F
- (b) The actual production of live births T**
- (c) The probability that a woman will conceive F fecundability
- (d) The reproductive potential of both males and females F fecundity
- (e) The reproductive potential of females only F

$\text{CBR} = \frac{\text{births in a year}}{\text{pop. at mid-year}} \times 1000$



- A 106. The crude rate of natural increase is calculated as:  $[B - D]$
- (a) The difference between births and deaths ✓
  - (b) The total number of births divided by mid-year population **F**
  - (c) Birth rate divided by death rate **F**
  - (d) Death rate divided by birth rate **F**
  - (e) Birth rate added to net migration and subtracted from death rate **F**
107. In order to compare mortality levels between different countries, it will be useful to calculate age-adjusted death rates wherever:
- (a) The populations are not exactly the same size
  - (b) The crude death rates are equal
  - (c) The causes of death are different
  - (d) The populations have considerable differences in age-structure
  - (e) The crude death rates are different
108. Which one of the following statements about micro-theory of migration is incorrect?
- (a) Typically rely on individual level survey data
  - (b) Attempts to integrate micro and macro factors of migration
  - (c) Focuses on individual, family or household as the unit of analysis
  - (d) Focuses on motivation, choices and intentions of potential migrants
  - (e) Focuses on information processing, and decision-making process of potential migrants
109. The percentage of Kenya's population above 65 years as per 1999 census results was:
- (a) 4% of the total population
  - (b) 10% of the total population
  - (c) 15% of the total population
  - (d) 20% of the total population
  - (e) 25% of the total population

110. When measured most precisely, the variable systolic blood pressure may be classified as:
- (a) Discrete
  - (b) Ordinal
  - (c) Continuous
  - (d) Interval
  - (e) None of the above
111. An example of an interval type of variable is:
- (a) Temperature
  - (b) Fasting blood sugar
  - (c) Age grouped into intervals
  - (d) Number of siblings
  - (e) None of the above
112. The main reason for our interest in the variability of data is:
- (a) It is used in statistical inference
  - (b) It is useful in indicating the need for interventions
  - (c) It is a good indicator for normality in the population distribution
  - (d) For large samples it is close to the mean
  - (e) It has no other use except: in descriptive statistics
113. Which one of the following statements is NOT appropriate for a null hypothesis?
- (a) The proportion of females in the medical profession is 0.5
  - (b) There is no relationship between sleep deprivation and having a migraine
  - (c) The proportion of extremely low birth weight babies at KNH is 0.15
  - (d) Females have the same IQ as males
  - (e) All of the above are appropriate
114. In a normally distributed population, the proportion of observations that lie within  $\pm 2$  standard deviations from the mean is approximately:
- (a) 95%
  - (b) 25%
  - (c) 68%
  - (d) 75%
  - (e) Impossible to tell

115. In which of the following study situations would you use a bar chart to present the data?

- (a) The intelligence quotient in a sample of health professionals
- (b) The birth-weights in a sample of neonates
- (c) The type of illness in a sample of patients attending a health facility
- (d) The relationship between height and FEV<sub>1</sub>
- (e) The difference between two population means

116. Quantities that are measured and calculated from samples are known as:

- (a) Parameters
- (b) Statistics
- (c) Distributions
- (d) Sampling variation
- (e) None of the above

117. The median is a better measure of central tendency when:

- (a) the distribution is normal
- (b) the number of observations is very large
- (c) its not necessary to perform significance tests
- (d) the distribution is markedly skewed
- (e) None of the above

118. Which one of the following is NOT among the quantities required in the construction of a confidence interval?

- (a) Shape of the distribution
- (b) The estimate
- (c) The reliability coefficient
- (d) Standard error
- (e) All the above are required

119. If we multiply all the observations in a data set by a constant then:

- (a) The value of the constant is added to the mean
- (b) The value of the constant is added to the standard deviation
- (c) The variance is increased by the value of the square of the constant
- (d) The mean is multiplied by the value of the constant
- (e) None of the above happens

120. An appropriate technique to compare two independent population means is the:

- (a) Chi-square test
- (b) Paired t-test
- (c) Independent samples t-test
- (d) Test for normality
- (e) None of the above

**WISH YOU SUCCESS**