

UNIVERSITY OF SWAZILAND

FACULTY OF HEALTH SCIENCES

SUPPLEMENTARY EXAMINATION PAPER, JULY 2014

TITLE OF PAPER : COMMUNITY MIDWIFERY
COURSE CODE : MID13I
DURATION : 2 HOURS
TOTAL MARKS : 75

INSTRUCTIONS:

- 1. ANSWER ALL QUESTIONS**
- 2. FIGURES IN BRACKETS INDICATE MARKS ALLOCATED TO EACH OR PART OF A QUESTION**
- 3. ANSWER EACH QUESTION ON A NEW PAGE**

Question 1

1.1 Define epidemiology. (2 marks)

1.2 Epidemiologists understand that disease results from complex relationships. Discuss the three elements of an epidemiologic triangle and give 3 examples of each. (9 marks)

1.3 Outline the characteristics of a successful screening programme. (10 marks)

1.4 List four characteristics of a successful screening program. (4 marks)

Total marks 25

Question 2

2.1 A couple who has been married for just over two years comes to see you for advice now that they want to have their first born child. Among other health tips that you give them, you also advise on the diet the wife has to take. Explain the information you would afford them. (13 Marks)

2.2 List 4 dietary conditions that increase nutritional risks at the time of pregnancy: (4 marks)

2.3 Outline three reasons a pregnant woman would require whole grain products (6 marks)

3 Deficiency in Vitamin A in pregnancy is associated with neonatal hypocalcaemia, decreased intrauterine mineral accrual, low birth weight, delayed postnatal growth, decreased bone density. **True or False (2 marks)**

Total Marks = 25

Question 3

1. The “physiological anaemia of pregnancy “ is a result of a (an) -----
 - A. Increase in the mother’s blood volume
 - B. Decrease in the mother’s iron absorption
 - C. Decrease in the mother’s water consumption
 - D. Decrease in the mother’s red blood cell production

2. The let-down reflex -----
 - A. Causes depression in a mother after the birth
 - B. Moves the hind milk towards the nipple after the infant has drawn the foremilk
 - C. Forces milk into the nipple area of the breast
 - D. Stimulate the rooting reflex.

3. It is assumed that diseases can be transmitted directly or indirectly. A vector such as a mosquito is an example of.....
 - A. direct disease transmission
 - B. indirect disease transmission
 - C. single exposure
 - D. common vehicle exposure

4. One of the fundamental premises underlying the study of epidemiology is.....
 - A. disease, illness and ill health are randomly distributed in a population
 - B. disease, illness and ill health are not randomly distributed in a population
 - C. disease, illness and ill health are randomly distributed in large populations
 - D. disease, illness and ill health are rarely distributed in large populations

5. Amongst the levels of disease prevention, which one has the impact on reducing disease transmission?
 - A. Primary level
 - B. Secondary level
 - C. Tertiary level
 - D. All of the above

6. Cases of tuberculosis (TB) were identified by the Swaziland National Tuberculosis Control Programme from the country's TB register. Which one of the following categories of study design best describes this method of case finding?
 - A. Prospective follow-up
 - B. Passive surveillance
 - C. Cross-sectional survey
 - D. Hospital-based surveillance

7. Although investigators may be careful during the process of selection of cases and controls, selection bias can make interpretation of results difficult. Which of the following is NOT a situation that can produce selection bias?
 - A. The exposure has some influence on the process by which controls are selected
 - B. The exposure has some influence on the process of case ascertainment
 - C. The disease status has some influence on the recall of exposures
 - D. The exposed cases are reported to registries more than unexposed

8. All of the following are potential benefits of a randomized clinical trial, EXCEPT:
 - A. The likelihood that the study groups will be comparable is increased
 - B. Self-selection for a particular treatment is eliminated
 - C. External validity of the study is increased
 - D. Assignment of the next subject cannot be predicted

9. The property of a test to identify the proportion of truly ill persons in a population who are identified as ill by a screening test
 - A. Sensitivity
 - B. Specificity
 - C. Positive predictive value
 - D. Negative predictive value

10. The probability of a person having the disease when the test is positive
 - A. Sensitivity
 - B. Specificity
 - C. Positive predictive value
 - D. Negative predictive value

11. The extent to which a test is measuring what it is intended to measure is the test's
- reliability
 - validity
 - sensitivity
 - specificity
12. A study that measures the number of persons with influenza in a calendar year is.....
- cohort study
 - case control
 - cross sectional
 - case report
13. The stage by which the presence of factors favour the occurrence of disease
- Stage of susceptibility
 - Stage of pre-symptomatic disease
 - Stage of clinical disease
 - Stage of disability
14. The following are modes of horizontal transmission of disease, EXCEPT:
- Contact
 - Vector
 - Common Vehicle
 - Genetic

Questions 15 to 17 are based on the information given in the following table:

In a small pilot study, 12 women with uterine cancer and 12 women with no apparent disease were contacted and asked whether they had ever used oestrogen. Each woman with cancer was matched by age, race, weight, and parity to a woman without disease. The results are shown below:

Pair No.	Women With Uterine Cancer	Women Without Uterine Cancer
1	Oestrogen user	Oestrogen non-user
2	Oestrogen nonuser	Oestrogen non-user
3	Oestrogen user	Oestrogen user
4	Oestrogen user	Oestrogen user
5	Oestrogen user	Oestrogen non-user

6	Oestrogen non-user	Oestrogen non-user
7	Oestrogen user	Oestrogen non-user
8	Oestrogen user	Oestrogen non-user
9	Oestrogen non-user	Oestrogen user
10	Oestrogen non-user	Oestrogen user
11	Oestrogen user	Oestrogen non-user
12	Oestrogen user	Oestrogen non-user

Table showing pilot study results

15. The study design used here is the.....
- case-series
 - case-control
 - randomised controlled trial
 - historical cohort
16. The purpose of matching the pairs is to reduce the chance for.....
- recall bias
 - selection bias
 - confounding
 - information bias
17. What is the estimated relative risk of cancer when analysing this study as a matched-pairs study?
- 0.25
 - 0.33
 - 1.00
 - 3.00
18. Fluoridation of water would be an example of -----
- Primary prevention strategy
 - Secondary prevention strategy
 - Tertiary prevention strategy
 - It is not a prevention strategy

19. -----describe(s) distribution of health outcomes in a population according to person, place, and time.
- A. Analytic epidemiology
 - B. Descriptive epidemiology
 - C. Point epidemic
 - D. All of the above
20. -----in screening tests represents the proportion of persons with the disease whom the test correctly identifies as positive (true positives).
- A. Predictive value
 - B. Sensitivity
 - C. Specificity
 - D. Reliability
21. -----is the proportion of persons with a negative test who are actually disease free.
- A. Validity
 - B. Sensitivity
 - C. Positive predictive value
 - D. Negative predictive value
22. Sources of error that can affect the reliability of tests include-----
- A. Variation inherent in the trait being measured
 - B. Inter-observer reliability
 - C. Internal consistency of the instrument
 - D. All of the above
23. Breast examination during an antenatal care visit is an example of -----
- A. Primary prevention
 - B. Secondary prevention
 - C. Tertiary prevention
 - D. An intervention spectrum

24. -----is the number of deaths from a specific disease in a given period divided by the number of persons diagnosed with that disease.

- A. Case-fatality rate
- B. Cause-specific rate
- C. Crude mortality rate
- D. Prevalence rate

25. -----is the number of deaths from a specific cause per mid-year population.

- A. Case-fatality rate
- B. Cause-specific rate
- C. Crude mortality rate
- D. Prevalence rate

Total marks = 25