

UNIVERSITY OF SWAZILAND
FACULTY OF HEALTH SCIENCES
GENERAL NURSING SCIENCE DEPARTMENT
FINAL EXAMINATION PAPER SECOND SEMESTER
MAY 2013

COURSE CODE: CHN 214

COURSE TITLE: EPIDEMIOLOGY & COMMUNICABLE DISEASES

TIME ALLOWED: 2 HOURS

MARKS: 75

INSTRUCTIONS:

1. There are 3 questions in this paper
2. Answer all three questions
3. Each question is allocated 25 marks
4. Write legibly

THIS PAPER IS NOT TO BE OPENED UNTIL THE INVIGILATOR HAS GRANTED PERMISSION

QUESTION 1

This question is made up of two parts. Part A consists of Multiple Choice questions and Part B True or False. Use your answer sheet for the responses.

Part A: Multiple Choice

For the following multiple choice questions select the most correct answer e.g. 26. E

1. Epidemiologists are interested in learning about
 - A. The causes of diseases and how to cure them
 - B. The frequency and geographic distribution of disease
 - C. The causal relationship between diseases
 - D. All of the above
2. Diseases that are always present in a community, usually at low, more or less constant frequency are classified as having and _____ pattern.
 - A. Endemic
 - B. Epidemic
 - C. Pandemic
 - D. 1988
3. All of the following are routes by which micro-organisms enter the body EXCEPT
 - A. Inoculation
 - B. Inhalation
 - C. Urination
 - D. Penetration
4. An epidemic that becomes unusually widespread and even global in its reach is referred to as a
 - A. Hyperendemic
 - B. Pandemic
 - C. Epidemic
 - D. Spanish flue

5. A disease vector is a/an:
 - A. Organism that transmits the disease
 - B. Symptom of a disease
 - C. Environmental condition associated with a disease
 - D. Utensils that have been contaminated by microorganisms
6. Which of the following causes malaria?
 - A. Mosquitoes
 - B. Plasmodium (singular plasmodia)
 - C. Red blood cells
 - D. Snails
7. Which of the following is NOT a disease rate
 - A. Case fatality rate
 - B. Incidence rate
 - C. Prevalence rate
 - D. Birth rate
8. What questions does descriptive epidemiology answer?
 - A. Who, what, where
 - B. Who , what, why, where
 - C. Who what, why, where, why
 - D. Who, what, where, when
9. What questions does analytical epidemiology answer?
 - A. How, When
 - B. How, Who
 - C. Why, How
 - D. What, Why

10. _____ is the separation of a group or individuals that are confirmed to have the disease, to prevent transmission to other susceptible members.

- A. Quarantine
- B. Isolation
- C. Disinfection
- D. Surveillance

11. Which of the following is NOT a method of disease control

- A. Reduction of contact
- B. Chemical use
- C. Modification of host resistance
- D. Toxicology

12. Most major health problems in poorer nations are due to:

- A. Parasitic and microorganisms
- B. Psychological tension resulting from world pressures
- C. Air pollution
- D. Behavioural

13. Which of the following is/are portal(s) of entry of an agent?

- A. Respiratory tract
- B. Urinogenital tract
- C. Alimentary tract
- D. All of the above

14. A person or animal that harbours a specific infectious agent and is a potential source of infection for man or animal is a:
- A. Contact
 - B. Case
 - C. Host
 - D. Carrier
15. The interval when a client manifests signs and symptoms specific to a type of infection is the:
- A. Illness Stage
 - B. Convalescence
 - C. Prodromal Stage
 - D. Incubation Period
16. The most effective way to break the chain of infection is by:
- A. Practicing good hand hygiene
 - B. Wearing gloves
 - C. Placing clients in isolation
 - D. Providing private rooms for clients
17. Elisa test is used for screening the presence of:
- A. Polio virus
 - B. Chlamydia
 - C. Human Immunodeficiency Virus
 - D. Varicella zoster virus

18. *Treponema pallidum* is a causative agent for which disease?

- A. Malaria
- B. Gonorrhoea
- C. Syphilis
- D. Chicken pox

19. Which of the following statements is a primary prevention measure for PTB?

- A. Nursing outreach programme
- B. Tracing contact of PTB clients
- C. Make available medical and x-ray facilities
- D. Educate public on disease process of PTB

20. All of the following are types of carriers EXCEPT:

- A. Healthy or asymptomatic carriers
- B. Incubatory carriers
- C. Convalescent carriers
- D. High Risk Cases carriers

Part B: True or False Questions

**For the following questions write True or False next to the corresponding number
e.g. 17. True**

21. If the portal of entry is close to the target tissue, incubation period will be shorter.
22. In epidemiology the unit of concern is the population.
23. Causation web is a method of conceptualizing and visualizing the interaction of multiple direct and indirect factors on a disease process.
24. Gender affect disease through hormonal means e.g. sex hormones may change susceptibility to disease, pregnancy, parturition, and lactation may also increase susceptibility.
25. All epidemiological studies follow a cohort over an extended period.

Total Marks = 25 Marks

QUESTION 2

Tuberculosis is a communicable disease that continues to challenge the all efforts being put in place to control its spread in Swaziland. A majority of those infected with HIV are co-infected with Tuberculosis.

- a) Describe the chain of infection relating to Tuberculosis (5)
- b) Outline the signs and symptoms of PTB (10)
- c) Discuss the primary prevention necessary to contain the spread of Tuberculosis(10)

Total marks = 25 marks

QUESTION 3

Epidemiology is an integral component of controlling communicable and non-communicable diseases since it is concerned with health events in human populations including studying how various states of health are distributed in the population and what environmental conditions, lifestyles, circumstances are associated with the presence or absence of the diseases. Discuss the following aspects as they relate to communicable diseases:

- a) Notification (5)
- b) Host factors in the agent-host-environment interaction (10)
- c) Primary prevention of water-borne diseases (10)

Total Marks = 25 marks