

**UNIVERSITY OF SWAZILAND
FACULTY OF HEALTH SCIENCES
GENERAL NURSING DEPARTMENT
FINAL EXAMINATION SECOND SEMESTER
MAY 2016**

**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**
- 5. NOTE - This examination paper has 8 pages**

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

QUESTION 1

For the following multiple choice questions write the most appropriate response for your answer. In your answer sheet write the question number and the letter representing the answer e.g. 26. B

1. 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 (1)

2. The hallmark feature of an analytic epidemiologic study is: (Choose one best answer)
 - A. Use of an appropriate comparison group
 - B. Laboratory confirmation of the diagnosis
 - C. Publication in a peer-reviewed journal
 - D. Statistical analysis using logistic regression (1)

3. Which of the following factors in disease transmission is NOT related to host characteristics?
 - A. Genetic profile
 - B. Customs
 - C. Alcohol
 - D. Marital status (1)

4. A reservoir of an infectious agent can be:
 - A. An asymptomatic human
 - B. An animal
 - C. The environment
 - D. All of the above (1)

5. Indirect transmission includes all of the following EXCEPT?
- A. Droplet spread
 - B. Mosquito-borne
 - C. Foodborne
 - D. Doorknobs or toilet seats (1)
6. At what stage does the rotavirus diarrhoea peak in infants?
- A. 5-20 months
 - B. 6-12 months
 - C. 6-24 months
 - D. 12-24 months (1)
7. Satisfactory refuse and sewage disposal, good housing facilities, pure water and food supplies and pasteurization of milk fall under primary prevention for which communicable disease?
- A. Poliomyelitis
 - B. Pertussis
 - C. Cholera
 - D. Measles (1)
8. A child who develops convulsions after the first dose of DPT should be changed to which vaccine?
- A. PCV vaccine
 - B. HBV vaccine
 - C. Measles vaccine
 - D. DT vaccine (1)
9. Tapeworm infestation in children best responds to which type of drug?
- A. Mayogel
 - B. Diazepam
 - C. Biltricide
 - D. Albendazole (1)

10. Which of the following is true about candida albicans?

- A. It appears as white spots on the inside of the mouth and buttocks
- B. It is a fungal infection
- C. It may affect both the mouth and nappy area
- D. All of the above

(1)

11. The following sexually transmitted infections will show as a genital discharge EXCEPT:

- A. Trichomonas Vaginalis
- B. Chancroid
- C. Gonorrhoea
- D. Candida Albicans

(1)

12. In the investigation of an epidemic, you compare the present frequency of the disease with the usual frequency at this time of the year in this community. This is done during which stage of the investigation?

- A. Establishing the epidemic
- B. Testing the hypothesis
- C. Formulation of the hypothesis
- D. Appraisal of facts

(1)

13. To describe the sex composition of the population, which demographic tool may be used?

- A. Sex ratio
- B. Sex proportion
- C. Population pyramid
- D. Any of these could be used

(1)

14. Which immunization produces a permanent scar?
- A. DPT
 - B. BCG
 - C. Measles vaccination
 - D. Hepatitis B vaccination
- (1)
15. Which of the following are types of rates are morbidity rates?
- A. Infant mortality and maternal mortality rates
 - B. Sex ratio and attack ratio
 - C. Incidence and prevalence rates
 - D. Fertility rates and disease specific rates
- (1)
16. What is the best course of action when there is a measles epidemic in a nearby community?
- A. Instruct mothers to feed their babies adequately to enhance their babies resistance
 - B. Give measles vaccine to babies aged 6 weeks to 3 months
 - C. Give babies aged 6 months to 11 months one dose of 100,000 IU of Retinol
 - D. Instruct mothers to keep their babies at home to prevent disease transmission
- (1)
17. Which clients are considered targets for DOTS category?
- A. Sputum negative cavitory cases
 - B. Clients returning after default
 - C. Relapses and failures of previous PTB treatment regimens
 - D. Clients diagnosed for the first time through a positive sputum exam
- (1)

18. To improve compliance to treatment, what innovation is being implemented in DOTS strategy?
- A. Having the health worker follow up the client at home
 - B. Having the health worker or a responsible family member monitor drug intake
 - C. Having the patient come to the health center every month to get his medications
 - D. Having a target list to check on whether the patient has collected his monthly supply of drugs (1)
- 19 To determine the possible sources of sexually transmitted infections, which is the BEST method that may be undertaken by the public health nurse?
- A. Contact tracing
 - B. Community survey
 - C. Mass screening tests
 - D. Interview suspects (1)
20. For prevention of Hepatitis A, you decided to conduct health education activities Which of the following is Irrelevant?
- A. Use of sterile syringes and needles
 - B. Safe food preparation and food handling by vendors
 - C. Proper disposal of human excreta and personal hygiene
 - D. Immediate reporting of water pipe leaks and illegal water connections (1)

Question 21-25 the following questions only write the matching letter not the word e.g. 22. A

Communicable disease	Causative agent
21. Conjunctivitis	A. Variola virus
22. Chancroid	B. Morbilli virus
23. Measles	C. Chlamydia trachomatis
24. Bilharzia	D. Haemophilus Ducreyi
25. Smallpox	E. Schistosoma hematobium

QUESTION 2

Write notes on the Rotavirus infection

- a) Chain of infection (1mark/point=6)
- b) Signs and symptoms (1mark/point=3)
- c) Primary Prevention (1mark/point=10)
- d) Outbreak management at home and at health facility level (1mark/point=6)

Total Marks = 25

QUESTION 3

Write short notes on the following:

- a) Four reasons why determining illness is difficult (1mark/point=4)
- b) Primary prevention of sexually transmitted infections (1mark/point=8)
- c) Risk factors for TB acquisition (1mark/point=5)
- d) Read the table below and respond to the following questions: (8 marks)

All responses to the following question are based on data in table below of the Nkilonko Inkhundla in 2014:

Age	Males	Females	Total
0-4	5,100	5,300	10,400
5-14	6,000	6,100	12,100
15-19	3,000	3,200	6,200
20-24	3,150	3,150	6,300
25-29	2,900	3,000	5,900
30-34	2,900	2,950	5,850
35-39	2,500	2,500	5,000
40-44	2,000	2,100	4,100
44-49	1,900	2,000	3,900
50+	3,500	3,600	7,100
Total	32,950	33,900	66,850

- 1) How many children are under 5 years of age living in this area (.5)
- 2) How many females are of child-bearing age (.5)
- 3) How many males are over 50 years of age (.5)
- 4) How many people have higher risk for Sexually transmitted infections (.5)

In the given population there were 500 live births; 300 deaths of whom 6 deaths were of women occurred at the labour ward; 850 illnesses due to sexually transmitted infections.

Using the factor of 1000 calculate:

- i. Crude death rate (2)
- ii. Maternal mortality rate (2)
- iii. Prevalence of Sexually Transmitted Infections (2)