



PAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

FACULTY OF HEALTH AND APPLIED SCIENCES

DEPARTMENT OF HEALTH SCIENCES

QUALIFICATION: BACHELOR OF ENVIRONMENTAL HEALTH SCIENCES, BACHELOR OF HUMAN NUTRITION & BACHELOR OF SCIENCE IN HEALTH INFORMATION SYSTEMS MANAGEMENT	
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DURATION: 3 HOURS	MARKS: 100

SUPPLEMENTARY/ SECOND OPPORTUNITY EXAMINATION QUESTION PAPER	
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INSTRUCTIONS
<ol style="list-style-type: none">1. Answer ALL the questions.2. Write clearly and neatly.3. Number the answers clearly.

PERMISSIBLE MATERIALS

NONE

THIS PAPER CONSISTS OF 6 PAGES (INCLUDING THIS FRONT PAGE)

SECTION A (35)

QUESTION 1

(15 MARKS)

Select the most appropriate answer from the options provided. (Each correct answer earns 1 mark)

- 1.1 The majority of Tuberculosis is transmitted by:
- A. Respiratory droplets.
 - B. Direct skin to skin contact.
 - C. Blood transmission.
 - D. Aedes Aegypti Mosquitoes.
- 1.2 The VDRL, RPR or Wasserman tests are used to detect the presence of organisms causing:
- A. Tuberculosis
 - B. Syphilis
 - C. Candidiasis
 - D. Malaria
- 1.3 A physician working in an emergency room, has just examined a person with watery diarrhoea. The physician suspects the man might have Cholera. The following actions must be taken **except**:
- A. Admitting the patient in the general ward of the local hospital
 - B. Commence rehydration of the patient
 - C. Isolation of the patient
 - D. Notification of WHO
- 1.4 The most common cause of diarrhoea globally is:
- A. E. Coli.
 - B. Rotavirus.
 - C. Bacterial Cholerae
 - D. Protozoa
 - E.
- 1.5 A nosocomial infection comes from:
- A. Insects
 - B. Medical facilities
 - C. Rodents
 - D. Tropical regions

- 1.6 As an epidemic spreads in a closed population, the number of susceptible will:
- A. Increase
 - B. Stabilize
 - C. Decrease
 - D. None of the above
- 1.7 An American couple aged 32 and 25, and their 18 months old son are travelling to Namibia for a holiday. They are enquiring on the precautionary measures to take regarding Meningococcal meningitis. Which of the following statements is CORRECT?
- A. Meningococcal meningitis is endemic in Sub-Saharan Africa.
 - B. Effective meningococcal vaccine that is fully protective against several serotypes which includes polyvalent for A, C, Y does not exist yet.
 - C. The vaccine is not recommended in the 18 months old boy.
 - D. Vaccination against meningococcal meningitis disease is required for persons travelling to Namibia.
- 1.8 The following communicable conditions can be responsible for non-communicable diseases in the long-term **except**:
- A. Schistosomiasis
 - B. Hepatitis A
 - C. Genital warts
 - D. HIV
- 1.9 A number of complications are associated with influenza. Which of the following is NOT one of these complications.
- A. Pneumonitis.
 - B. Myocarditis.
 - C. Encephalitis.
 - D. Death.
- 1.10 Which of the following causative agent is responsible for Bilharzia?
- A. Schistosoma Haematobium
 - B. Snails
 - C. Bilharzia Virus
 - D. Plasmodium(Singular plasmodia)
- 1.11 Which of the following is a commonly causes of highly communicable dermatophyte infection of the feet?
- A. Taenia capitis
 - B. Taenia corporis
 - C. Taenia pedis
 - D. All of the above

1.12 The incubation period for food poisoning due to *Staphylococcus aureus* is?

- A. 2-10 days
- B. 2-4 days
- C. 1-7 days
- D. 2-4 hours

1.13 _____ is both an infectious and a communicable disease.

- A. Yellow fever
- B. Tetanus
- C. Hepatitis B
- D. Ebola

1.14 _____ is the causative agent of chickenpox.

- A. Varicella Zoster 039
- B. Virus zoster
- C. Varicella zoster
- D. Chickenzoster

1.15 The most effective way to break the chain of infection is by;

- A. Wearing gloves properly
- B. Practising good hand hygiene
- C. Placing infected patients in isolation
- D. Hiring and epidemiologist.

QUESTION 2

(20 MARKS)

2.1 Define the following terms:

- 2.1.1 Reservoir: (2)
- 2.1.2 Infection (2)
- 2.1.2 Zoonosis: (2)
- 2.1.3 Infectious agent (2)
- 2.1.5 Quarantine (2)

- 2.2 Match the following causative agents with their respective communicable diseases table below. (Each correct answer earns 1 mark). (10)

	Causative agent	Communicable Disease
2.2.1.	<i>H1N1</i>	A. Malaria
2.2.2.	<i>Sarcoptes scabie</i>	B. Anthrax
2.2.3.	<i>Ancylostoma duodenale</i>	C. AIDS
2.2.4.	<i>Plasmodium Falciparum</i>	D. Meningococcal Meningitis
2.2.5.	<i>HIV</i>	E. Lyme disease
2.2.6.	<i>Neisseria meningitides,</i>	F. Brucellosis
2.2.7.	<i>Togavirus</i>	G. Influenza
2.2.8.	<i>Influenza</i>	H. Plague
2.2.9.	<i>Yersinia pestis</i>	I. Scabies
2.2.10	<i>B. anthracis,</i>	J. Hookworm infestation
		K. Swine flu
		L. Measles

SECTION B (43)

QUESTION 3

(18 MARKS)

- 3.1 Mr Ngwenya is 43 years old. He has symptoms of TB disease and a cavity on his chest X-ray, but all of his sputum smears are negative for acid-fast bacilli. He lives with his wife, daughter and, three (3) grandchildren aged 18 months, 3 years and 5 years, in a small house in an informal settlement.
- 3.1.1 Recall the causative agent of tuberculosis and briefly explain mode of transmission of the disease. (2)
- 3.1.2 Outline the most common signs and symptoms of tuberculosis (6)
- 3.1.3 What actions would you propose for Mr Ngwenya's family home? (3)
- 3.1.3 Describe measures necessary to ensure that Mr Ngwenya does not develop Multi-drug resistant TB (7)

QUESTION 4

(25 MARKS)

- 4.1 Ririn, a 16 year old high school girl, received a letter from the blood transfusion donation unit informing her that she has Hepatitis. This came as a shock to her because she was a health teenager. She was once hospitalised after a car accident, where she had a blood transfusion after losing a lot of blood. She never had sexual relationship; her relationships only go as far as kissing. To confirm the diagnosis, Ririn's mother, who is a nurse, consulted their family doctor. After some blood tests, the doctor confirmed the diagnosis as Hepatitis B. The doctor informed Ririn, that she will have this virus for the rest of her life. Ririn was very upset because she didn't understand how she got the Hepatitis B virus. As a family, they were planning to travel to Brazil. She is concerned that she may not be allowed to travel now.

- 4.1.1 Justify why the family doctor had to conduct further investigation before confirming the diagnosis. (2)
 - 4.1.2 The doctor told Ririn that she virus will be in her body for the rest of her life. Does this mean she is immune against Hepatitis B? (2)
 - 4.1.3 Outline the possible ways that the Hepatitis B may have been transmitted to Ririn. (6)
 - 4.1.4 Propose preventive measures that are important in this case. (3)
- 4.2 Rabies is an infectious viral disease that is almost always fatal following the onset of clinical symptoms. The disease is present on all continents, with over 95% of human deaths occurring in the Asia and Africa regions. Rabies is one of the neglected tropical diseases that predominantly affects poor and vulnerable populations who live in remote rural locations.
- 4.2.1 Recall the causative agent of this disease. (1)
 - 4.2.2 Outline any six clinical manifestations of rabies. (6)
 - 4.2.3 Discuss the prevention and control measures of rabies in the general community. (5)

SECTION C (22)

QUESTION 5

(22 MARKS)

- 5.3 During your usual home visits, a farmer told you that he has anaemia. He initially had a brief respiratory illness, and much later he started manifesting signs of anaemia and slight abdominal symptoms. During his recent doctor's consultation, stool specimen were collected for examination. Upon further enquiry, you found out that the farmer never got de-wormed when he was a child. He usually works in the fields without shoes.
- 5.3.1 What is the most likely disorder that could have caused this farmer's condition? (2)
 - 5.3.2 Name the host of these infections. (1)
 - 5.3.3 Explain how this disease is transmitted and illustrate the life cycle of infection/organism. (6)
 - 5.3.4 Discuss how you would prevent the occurrence of this disorder among the farmers and general community. (3)
- 5.4 Elaborate on the epidemiology of EITHER Cholera OR Rubella. (10)

GOOD LUCK!!