



**NAMIBIA UNIVERSITY  
OF SCIENCE AND TECHNOLOGY**

**FACULTY OF HEALTH, APPLIED SCIENCES AND NATURAL RESOURCES**

**DEPARTMENT OF HEALTH SCIENCES**

<b>QUALIFICATION:</b> BACHELOR OF ENVIRONMENTAL HEALTH SCIENCES, HUMAN NUTRITION AND HEALTH INFORMATION MANAGEMENT SYSTEM	
<b>QUALIFICATION CODE:</b> 08BOHS	<b>LEVEL:</b> 6
<b>COURSE:</b> EPIDEMIOLOGY 2A	<b>COURSE CODE:</b> EPD 611S
<b>DATE:</b> JUNE 2022	<b>SESSION:</b> SEMESTER ONE, 2022
<b>DURATION:</b> 3 HOURS	<b>MARKS:</b> 100

<b>FIRST OPPORTUNITY EXAMINATION QUESTION PAPER</b>	
<b>EXAMINER(S):</b>	MR JOSHUA HIDINWA
<b>MODERATOR:</b>	DR ROSWITHA MAHALIE

<b>INSTRUCTIONS</b>
<ol style="list-style-type: none"><li>1. Answer ALL the questions.</li><li>2. Write clearly and neatly.</li><li>3. Number the answers clearly.</li></ol>

**PERMISSIBLE MATERIALS**

NONE

**THIS QUESTION PAPER CONSISTS OF 6 PAGES** (Including this front page)

## SECTION A [30 MARKS]

### QUESTION 1

[10 MARKS]

Select the most appropriate answer from the options provided.

*Example: 1.35 A*

- 1.1 Many individuals may not realize that they use epidemiologic information to make daily decisions affecting their health by doing what: [1]
- A. How these patterns relate to the level and distribution of public health services available
  - B. Use a condom
  - C. Disease investigation
  - D. Outbreak investigation
  - E. Visiting hospital
- 1.2 When investigating a disease outbreak, epidemiologists rely on health-care providers and laboratorians to establish the proper diagnosis of individual patients on: [1]
- A. How and who
  - B. Who and what
  - C. What and where
  - D. Completing the clinical picture
  - E. Where and when
- 1.3 What type of study is used to determine the exposure status for each individual (clinical trial) or community (community trial): [1]
- A. Observational Study
  - B. time, place, and person
  - C. Experimental study
  - D. Mechanical vector-borne transmission
  - E. Biological vector-borne transmission
- 1.4 Simply observing the exposure and outcome status of each study participant is called: [1]
- A. Applying the knowledge gained by the studies to community-based practice
  - B. Observational Study
  - C. Experimental Study
  - D. Laboratory result
  - E. Epidemiology study

- 1.5 An outbreak in which a group of persons are all exposed to an infectious agent or a toxin from the same source is called: [1]
- A. For disease diagnosis and treatment in health care facilities
  - B. For Screening of patients in the community
  - C. Common Source
  - D. For the wide range of health-related states and events that are studied
  - E. Chemical infestation
- 1.6 The reservoir for diseases which are transmitted from person to person without intermediaries include the sexually transmitted diseases, measles, mumps, streptococcal infection, most respiratory pathogens, and many others they are found in: [1]
- A. Human reservoirs
  - B. Suspect or probable
  - C. Confirmed or suspect
  - D. Not a case
  - E. Not a case or confirmed
- 1.7 An outbreak that does not have a common source, but instead spreads gradually from person to person is called: [1]
- A. Common Source
  - B. Point Source
  - C. Propagated
  - D. Outbreak
  - E. Epidemic
- 1.8 The presence of an infectious agent on a body surface, on or in clothes, bedding, toys surgical instruments or dressings or other inanimate articles or substances including water, milk and food is called: [1]
- A. Contamination
  - B. Infestation
  - C. Not a case
  - D. Investigation
  - E. Disease
- 1.9 For person or animals the lodgment, development and reproduction of arthropods on the surface of the body or in the clothes is called: [1]
- A. Common Source
  - B. Infestation
  - C. Propagated
  - D. Infectious
  - E. Disease

10. A person or other animal, including birds and arthropods, that affords subsistence or lodgements to an infectious agent under natural conditions is called: [1]

- A. Contagious disease
- B. Infestation
- C. Host
- D. Bacteria
- E. Viruses

## QUESTION 2

[10 MARKS]

Indicate which of the following statements is True or False

2.1 If the disease agent acquires drug resistance, it will further facilitate its spread. [1]

2.1 An essential requirement for indirect transmission is that the infectious agent must be capable of surviving outside the human host in the external environment and retain its basic properties of pathogenesis and virulence till it finds a new host. [1]

2.2 Transmission of the infectious agent through the agency of water, food does not including raw vegetables, fruits, milk and milk products. [1]

2.3 Water and food is not the most frequent vehicle of transmission, because they are used by everyone. [1]

2.4 Active immunity depends upon the humoral and cellular responses of the host. [1]

2.5 Passive immunity it refers to when antibodies produced in one body human or animal are transferred to another to induce protection against disease. [1]

2.6 When a body is unable to produce its own antibodies it is called hyper-immunity. [1]

2.7 Herd immunity does not provide an immunological barrier to the spread of disease in the human herd. [1]

2.8 If the herd immunity drops it could result in the occurrence of an epidemic in the population. [1]

2.10 The purpose of immunization is to develop immunological memory. [1]

**QUESTION 3****[10 MARKS]**

Match the statement in column 1 to the corresponding concept(s) in column 2.

*Example: 2.24 A Each correct answer earns 1 mark.*

Column 1		Column 2		Marks
3.1	When the occurrence of a disease within an area is clearly in excess of the expected level for a given time period, it is called what?	A	Tuberculosis	[1]
3.2	When a disease spread over several countries or continents, affecting a large number of people, it is called what?	B	from skin –to- skin, mucosa to mucosa or mucosa to skin of the same or another person	[1]
3.3	Infection may be transmitted by direct contact.	C	epidemic or outbreak	[1]
3.4	Disease transmitted by water and food fecal-oral.	D	Syphilis, HIV, Hepatitis B	[1]
3.5	Sexually transmitted diseases.	E	Experimental study	[1]
3.6	The droplets spread is usually limited to 30-60 cm.	F	continent or the world	[1]
3.7	The potential for droplet nuclei inhalation increased in conditions of proximity, overcrowding and poor ventilation.	G	hepatitis A, food poisoning and intestinal parasites	[1]
3.8	Hands are the most common medium by which pathogenic agents are transferred to food.	H	Proportion	[1]
3.9	A person is said to be immune when he possesses specific protective antibodies.	I	Specific	[1]
3.10	Pandemic Usually affecting a large proportion of the population occurring over a wide geographic area such as a section of nation, the entire nation.	J	Between source and host	[1]
		K	Good hand hygiene	
		L	Observational study	
		M	Making individual decisions	
		N	pandemic	
		O	previous infection or immunization	

## SECTION B [18 MARKS]

**Question 4:** [18 Marks]

4.1 Discuss the peculiarity of Non-Communicable diseases [8]

4.2 Outline the core functions Epidemiology. [10]

## SECTION C [52 MARKS]

**QUESTION 5:** [34 MARKS]

5.1 Elaborate Prevention of Road Traffic Accidents. [10]

5.2 Discuss the activities which you need to carry out under primary, secondary, and tertiary prevention of non-communicable disease. [12]

5.3 Mention some of the Intermediate risk factors of non-communicable disease. [4]

5.4 Explain the chain of infection. [8]

**QUESTION 6** [18 MARKS]

6.1 Discuss the steps in an outbreak investigation. [10]

6.2 Explain in detail the principles of epidemiology. [8]

**Good luck!**

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**TOTAL : 100 MARKS**