



(University of Choice)

**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)**

MAIN CAMPUS

UNIVERSITY EXAMINATIONS

2021/2022 ACADEMIC YEAR

SECOND YEAR FIRST TRIMESTER EXAMINATION (SPECIAL)

FOR THE DEGREE

OF

**BACHELOR OF SCIENCE IN GLOBAL AND TRAVEL
MEDICINE**

COURSE CODE: NCG 211

COURSE TITLE: ZONOTIC AND EMERGING DISEASES

DATE: 3/10/2022 DAY: MON TIME: 8 AM – 11 AM

INSTRUCTIONS TO CANDIDATES

THIS PAPER CONSIST OF THREE SECTIONS A, B AND C

ANSWER ALL QUESTIONS

TIME: 3 HOURS

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 5 Printed Pages. Please Turn Over 

Section A: MCQ questions (20 marks)

1) The portal of entry and exit for most infectious diseases, including HIV, is the same:

True/ False

2) The earliest recorded pandemic – the Black Death was speculated to be _____

- a) Plague
- b) Rabie
- c) Leprosy
- d) None of the above

3) Perinatal transmission is said to occur when a pathogen is transmitted from

- a) Non-human to human
- b) Infected to uninfected
- c) Mother to infant
- d) All of the above

4) Pustules which are more commonly seen on face, neck, hands and back are diagnostic to which condition?

- a) Plague
- b) Rabies
- c) Lyme
- d) Anthrax

5) Lyme disease is caused by

- a) Lymesiosis virus by a tsetsefly vector
- b) Borrelia bacterium by a tick vector
- c) Lymesiosis virus by a sand fly vector
- d) Borrelia lyme parasitic by a bat vector

6) Virulence is the:

- a) Ability to cause clinical disease
- b) Ability to cause severe disease
- c) The ability to evoke an immune response
- d) All of the above

7) Which of the following is a parasitic zoonosis?

- a) Leptospirosis
- b) Rabies
- c) Tick typhus
- d) Toxoplasmosis

- 8) The natural hosts for Nipah virus is
- Fruit bats of the family rodentia
 - Fruit bats of the family passeriformes
 - Fruit bats of the family Chiroptera
 - Fruit bats of the family Pteropodidae
- 9) Creutzfeldt-Jakob disease (vCJD) can be contracted only if _____
- Consume nerve tissues (brain and spine) of cattle infected with Mad cow disease
 - Consume shrimp infected with E.coli
 - Consume water tainted with vCJD rickettsial
 - Consume fish infected with vCJD rickettsial
- 10) Lyme disease is transmitted to humans through
- Touching an infected person
 - Kissing an infected person
 - Having sex with an infected person
 - None of the above
- 11) The 1918 flu pandemic, also called the Spanish Flu was caused by
- H1N1 influenza A virus
 - SARS coronavirus 2
 - Influenza C virus
 - Simian virus 5
- 12) How does Ebola spread from human to human?
- Spreads through direct contact with blood and bodily fluids
 - Spreads through inhaling infected droplets
 - Spreads through contaminated water
 - None of the above
- 13) The term "Zoonoses" was coined from Zoon- Animal & Noson – Disease and first used by
- Rudolf Virchow
- 14) Anthrax is caused by
- Viral agent
 - Parasitic agent
 - Bacteria agent
 - Fungal agent

- 15) Which of the following is rickettsial zoonosis?
- a) Scrub typhus
 - b) Leishmaniasis
 - c) Schistosomiasis
 - d) Cryptococcosis
- 16) Identify a group of diseases associated with domesticated animals.
- a) Bartonellosis, echinococcosis, ehrlichiosis
 - b) Capnocytophaga carnimorsus, leptospira, ehrlichiosis
 - c) Bartonella henselae, leptospira, ehrlichiosis
 - d) Salmonella DT104, leptospira, ehrlichiosis
- 17) In which class do Marburg and Ebola viruses belong?
- a) Reston viruses
 - b) SARS viruses
 - c) Filoviruses
 - d) Simian viruses
- 18) The first ever origin of plague in the world is believed to be
- a) China in the 21st century
 - b) Egypt in the 6th century
 - c) Constantinople in the year 542 BC
 - d) Europe in the 5th century
- 19) The concept of quarantine was during
- a) The outbreak of foot and mouth disease of 1920 in Asia
 - b) The European plague of 1430s
 - c) The reign of the Byzantine emperor Justinian I
 - d) The Era of Complacency is marked
- 20) Which of the following is not an issue in animals raised for product output or slaughtered for consumption?
- a) Disease spread in handlers
 - b) Disease spread in monocultures
 - c) Use of antibiotics
 - d) Excessive waste output

Section B: SAQs (40 marks)

1. Define the term "*Virulence*" (2 marks)
2. Describe the **four (4)** classes of zoonoses according to the mode of transmission (8 marks)
3. Explain the general measures in prevention of zoonoses (7 marks)
4. Describe the signs and symptoms of Lyme disease (6 marks)
5. Discuss Emerging Foodborne Zoonoses (9 marks)
6. State **eight (8)** risk factors for bush meat related zoonoses (8 marks)

Section C: LAQs (40 marks)

1. Discuss Nipah virus disease in the following sequence; definition, types, treatment and prevention (20 marks)
2. Giving examples, discuss emergence and re-emergence of zoonotic diseases (20 marks)

