



(University of Choice)

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

MAIN CAMPUS

**UNIVERSITY EXAMINATIONS
2022/2023 ACADEMIC YEAR**

THIRD YEAR SECOND TRIMESTER EXAMINATIONS

**FOR THE DEGREE
OF
BACHELOR OF SCIENCE IN CLINICAL MEDICINE, SURGERY AND COMMUNITY
HEALTH**

COURSE CODE: COM 341

COURSE TITLE: COMMUNITY HEALTH III

DATE: FRIDAY 17TH APRIL 2023

TIME: 2:00-4:00 PM

INSTRUCTIONS TO CANDIDATES

Answer all questions

Section A: Multiple choice questions (MCQ) (20 Marks)

Section B: Short answer questions (SAQ) (40Marks)

Section C: Long answer questions (LAQ) (40Marks)

TIME: 2 Hours

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 5 Printed Pages. Please Turn Over. 

SECTION A: Multiple Choice Questions (20Marks)

1. To strengthen prevention and control of HIV, community health personnel can implement all of the following strategies, with the exception of __
 - a) Provision of HIV prophylaxis
 - b) Offering key HIV prevention messages
 - c) Tracing, education and referral of those who interrupt antiretroviral therapy
 - d) Ensuring pregnant women attend all antenatal clinic schedules

2. Which of the following statements best characterizes infectious illness transmission?
 - a) The majority of indirect transmissions can occur in the absence of the interaction of the epidemiological triad
 - b) In most circumstances, acute clinical patients are more infectious than carriers.
 - c) An insect bite is an example of an inanimate mode of transmission.
 - d) Duration and proximity indicators can be utilized to define the mode of transmission.

3. What is the most distinguishing feature of ectoparasites?
 - a) Ectoparasites never cause disease, they only transmit pathogenic agents.
 - b) Ectoparasites typically burrow into the host skin for an extended period of time.
 - c) House flies are widespread ectoparasites.
 - d) In most cases, ectoparasites transmit infectious disease pathogens indirectly.

4. Community health workers can perform all of the following to lower the occurrence of malaria, except?
 - a) Environmental protection
 - b) Promote use of insecticide treated mosquito nets at household level
 - c) At household level, they diagnose malaria using rapid diagnostic test kits
 - d) At household level, they treat all forms of malaria

5. The infectious disease agent responsible for tetanus _____
 - a) Is known as Clostridium tetani, and it is the direct cause of tetanus.
 - b) Is a gram-positive coccus
 - c) Is a zoonotic disease that is spread by donkeys and horses
 - d) Produces a toxin that causes involuntary muscle contraction

6. HIV preexposure prophylaxis (PrEP) is provided to members of the community who are at high risk of HIV infection. Which of the following assertions is false?
 - a) PrEP is only administered after establishing a HIV viral load in an individual who is at constant risk of HIV infection
 - b) PrEP may be discontinued once the risk of HIV transmission no longer exists
 - c) During conception attempts, an HIV-negative partner in a discordant relationship may be given PrEP
 - d) Tenofovir and Emtricitabine are drugs of choice

7. The primary distinction between active and passive artificially acquired immunity is that __
 - a) Active artificial acquired immunity develops after infection, whereas passive artificial acquired immunity is passed down from mother to child.

- b) Passive artificial acquired immunity is conferred by borrowing antibodies from other persons, whereas active artificial acquired immunity is conferred by the body producing its own antibodies.
 - c) Immunoglobulins frequently stimulate active artificial acquired immunity, whereas vaccinations stimulate passive artificial acquired immunity
 - d) Active artificial acquired immunity is transient, whereas passive artificial acquired immunity frequently lasts a lifetime
8. Primary prevention of infectious diseases entails ____
- a) Reduction of damage and pain from the disease
 - b) Screening individuals for early disease diagnosis and treatment
 - c) Routine pulmonary function tests for smokers
 - d) Improving general health and avoiding risk factors for disease
9. Prevention and control of infectious respiratory tract diseases ____
- a) Can be achieved through respiratory protection using surgical masks especially among uninfected patients' care takers
 - b) Is easy through environmental management
 - c) Installation of ultraviolet lamps in respiratory infection clinics is cost-effective
 - d) Depending on the disease, health care workers may benefit from chemoprophylaxis
10. Which of the following statements is not true?
- a) Naturally HIV infection result in AIDS
 - b) Transmission of HIV in post window period phase is minimal due to low viral load
 - c) AIDS defining illnesses are more prevalent at stage four of HIV infection
 - d) Chronic HIV infection is largely asymptomatic
11. During prodromal phase of infectious disease life cycle ____
- a) Specific signs and symptoms of disease begins to appear
 - b) Cellular and humoral immunity kicks in
 - c) Clinical features are non-specific and not severe
 - d) Signs and symptoms of infectious disease begins to fade
12. Which of the following statements best characterizes the infection chain?
- a) The portal of exit and portal of entry are usually the same
 - b) Inapparent are carriers usually very infectious
 - c) Transmission of infectious disease agent is dependent on severity of the case
 - d) DNA viruses are difficult to control because they are prone to mutation
13. Nosocomial infections ____
- a) Are acquired by individuals with defective immunity
 - b) Are unrelated to the patient's primary condition
 - c) Respond favorably on commonly used antimicrobial agents
 - d) Even with an effective infection prevention and control program, it is difficult to contain them
14. The most cost-effective measure to prevent rabies is ____
- a) Cleaning animal bite wound using soapy water and brush

- b) Scheduled immunoglobulins for victims of bite for unknown animals
 - c) Avoiding unnecessary encounter with animals
 - d) Mass vaccination of dogs
15. Which of the following infectious disease agents is frequently linked to genital ulcer illness?
- a) *Neisseria gonorrhoeae*
 - b) *Chlamydia trachomatis*
 - c) *Treponema pallidum*
 - d) *Trichomonas vaginalis*
16. Which of the following statements about the natural history of disease is false?
- a) There is a favorable environment for infectious disease agent exposure at the susceptibility stage.
 - b) It begins with appearance of the first signs & symptoms disease and continues until recovery, incapacity, or death occurs.
 - c) Depending of the host and causal agent, phase of pathogenesis may pass undetected
 - d) Natural history of infectious disease refers to the progression of a disease process in an individual over time, in the absence of intervention
17. Specific active natural immunity occurs
- a) After stimulation of immune response by a biological agent
 - b) After inoculation of an antigen in to the body to stimulate an immune response
 - c) After transfer of antibodies from mother to the baby through breast milk
 - d) After administering immunoglobulin to clients who are not sick
18. What is the mainstay treatment for acute diarrhea and vomiting?
- a) Antimicrobials to eliminate the causative agent
 - b) Water and electrolyte replacement
 - c) Antispasmodics for patients with severe abdominal pain
 - d) Continuous feeding
19. Individuals with latent tuberculosis infection _____
- a) Usually present with cough, fever, weight loss and night sweats
 - b) Are diagnosed through gene xpert
 - c) Can take 3-6 months therapy depending on age and HIV status
 - d) Are not infectious except those below five years of age
20. Malaria positivity rate is dependent on
- a) Sensitivity and specificity of the test
 - b) Testing technique
 - c) Community prevalence
 - d) All of the above

Section B: Short Answer Questions (SAQs)**(40marks)**

1. Outline the stages of an infectious disease's life cycle **(5 Marks)**
2. Identify the populations who are eligible for tuberculosis prevention therapy **(5 Marks)**
3. What precautions should communities take to prevent respiratory infections? **(5 Marks)**
4. Identify the different types of human reservoirs for infectious disease pathogens **(5 Mark)**
5. What is the HIV testing services package of?
6. What contributes to the population's wide spectrum of infectious diseases? **(5 Marks)**
7. What measures can communities take to prevent malaria?
8. Define the following terms **(5 Marks)**
 - a) Colonization;
 - b) Latent infection
 - c) Inapparent infection

Section C: Long Answer Questions (40Marks)

1. The mode of transmission is a crucial component in the chain of infection because it bridges the gap between the portal of exit from the reservoir to the portal of entry into the susceptible host.
 - a) Explain the different modes of transmission **(10 Marks)**
 - b) Discuss preventative and control procedures for modes of transmission **(10 Marks)**
2. Antimicrobial resistance is a growing issue with major implications for community health. While providing mitigation measures, discuss factors that are likely to increase antibiotic resistance in the community. **(20 Marks)**