**KENYA MEDICAL TRAINING COLLEGE – NYAMIRA**

**END OF YEAR ONE SEMESTER ONE EXAMINATION**

**MARCH 2017 KRCHN CLASS (PRE-SERVICE)**

**MICROBIOLOGY EXAMINATION**

DATE: …………………… TIME:…………………..

**INSTRUCTIONS**

1. Read the questions carefully and answer only what is asked.
2. Enter your examination number and question number on each page used.
3. ALL questions are compulsory.
4. For part 1 (MCQs), write the answer in the spaces provided on the answer booklet and each MCQ is one (1) mark.
5. For Part 2 (SHORT ANSWER QUESTIONS), answer the questions following each other.
6. For Part 3 (LONG ANSWER QUESTIONS), answer to each question MUST start on a separate page.
7. Omission of and or wrong numbering of a question or part of the question will result in 10% deduction of the marks scored from the relevant part.
8. Do NOT use a pencil.
9. Mobile phones are NOT allowed in the examination hall.

For Examiner:

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| --- | --- | --- | --- | --- |
| **MCQS** | **SAQS** | **LAQS 1** | **LAQS 2** | **TOTAL** |
|  |  |  |  |  |

***PART ONE MCQ (MULTIPLE CHOICE QUESTIONS) –MICROBIOLOGY– 5 MARKS***

Q.1. The following are modes of transmission of microorganisms except:

1. Droplet transmission
2. Host
3. Food
4. Contact spread

Q.2. One of the parts of a bacteria is the cell wall. Its functions is to:

1. Asist in motility
2. It prevents bacterial swelling and lysis
3. It prevents bacteria from dying
4. Promotes bacterial attachment to certain surfaces

Q.3. Replication of viruses involves the following steps:

1. Penetration and uncoating, attachment, release, assembly
2. Attachment, replication, penetration and uncoating, assembly, release
3. Penetration and uncoating, attachment, assembly, release
4. Attachment, penetration and uncoating, replication, assembly, release

Q.4. Cutaneous mycoses affects the following parts of the body:

1. Hair, muscles, subcutaneous tissues
2. Skin, hair, nails
3. Skin, bones, lungs
4. Dermis, skin, nails

Q.5. Mechanical barriers and surface secretions is one of the many factors that influence innate immunity. It includes the following components:

1. Gastrointestinal tract, urine, age
2. Tears, saliva, nutritional factors
3. Gastrointestinal tract, tears, saliva
4. Skin, tears, sex

***PART TWO SAQ (SHORT ANSWER QUESTIONS) –MICROBIOLOGY– 35 MARKS***

Q.1. State five (5) major characteristics of microorganisms. 5 marks

Q.2. Define the terms facultative anaerobes and obligate anaerobes. 2 marks

Q.3. Define the terms:

1. Sterilization
2. Disinfection 2 marks

Q.4. State four (4) characteristics of viruses. 4 marks

Q.5. Outline five (5) factors that influence innate immunity. 5 marks

Q.6. State four (4) differences between innate immunity and acquired immunity 4 marks

Q.7. State four (4) importance of microbiology in nursing. 4 marks

Q.8. List four (4) types of T cells involved in cell mediated immunity. 2 marks

Q.9. State two (2) types of acquired immunity. 2 marks

Q.10. State three (3) types of transplants. 3 marks

Q.11. List four (4) clinical features of hypersensitivity reaction. 2 marks