



Technical University of Mombasa

Faculty of Applied and Health Sciences

DEPARTMENT OF ENVIRONMENT AND HEALTH SCIENCES

CERTIFICATE IN COMMUNITY HEALTH AND HIV MANAGEMENT
(CCH 13M)

AAB 1105 : GENERAL MICROBIOLOGY

SPECIAL/SUPPLEMENTARY: EXAMINATIONS

SERIES: JULY 2014

TIME: 2 HOURS

INSTRUCTIONS:

You should have the following for this paper

- *Answer booklet*

This paper consists of **FIVE** questions.

Answer Question **ONE (compulsory)** and any other **TWO** questions

This paper consists of 2 PRINTED pages

Question ONE

- a) State any FOUR factors that determine disease development in a host (4marks)
- b) Outline Koch's postulates (experimental steps to establish the microbe that cause a disease) (4marks)
- c) Explain the following terminologies
 - (i) Infectious dose (2marks)
 - (ii) Systemic infection (2marks)
 - (iii) Local Infection (2marks)
 - (iv) Tyophilization (2marks)
 - (v) Virulence (2marks)
- d) Explain any two general properties of antibacterial agents. (4marks)
- e) Briefly describe the role of the normal microbiota of the common body. (6marks)
- f) Differentiate between acidic dyes and basic dyes. (2marks)

Question TWO

- a) Describe the mode of action of antibacterial agents (10marks)
- b) Explain any FIVE factors that may promote urinary tract infection during hospitalization. (5marks)

Question THREE

- a) Describe the general mechanism of pathogenesis (disease development) (12marks)
- b) State any THREE characteristics of molds (3marks)

Question FOUR

- a) Describe the components of the prokaryotic cell structure (6marks)
- b) Explain the nutritional requirements for microorganisms (9marks)

Question FIVE

- a) State and describe any FOUR clinical entities of dermatophytes and their sites of infection. (12marks)
- b) Explain any THREE factors that favour the spread of fungal diseases. (3marks)