

# TECHNICAL UNIVERSITY OF MOMBASA

## FACULTY OF APPLIED AND HEALTH SCIENCES

### DEPARTMENT OF ENVIRONMENT & HEALTH SCIENCES

#### UNIVERSITY EXAMINATION FOR THE DIPLOMA IN COMMUNITY HEALTH AND HIV MANAGEMENT AND DIPLOMA IN NUTRITION AND DIETETICS.

#### DCHM AND DND 16S/YEAR1/ SEMESTER1

#### AAB 2104: GENERAL MICROBIOLOGY

#### SEMESTER EXAMINATION

#### SERIES: DECEMBER 2016

#### TIME: 2 HOURS

#### *Instructions to Candidates*

This paper consists of **FIVE (5)** questions

Answer question ONE (COMPULSORY) and any other TWO questions.

*This paper consists of four printed pages.*

#### **Question 1. (30 Marks)**

a) Define; (2 Marks each)

i). Viable count

ii). Disinfection

b). Differentiate between a species and a strain. (2 Marks)

c). Describe the colour (in a Gram stained smear) of Gram positive and Gram negative bacteria, respectively. (2 Marks).

d). List the possible shapes of bacteria. Write one example for each category. (4 Marks)

e). Mention 5 groups of disinfectants. (5 Marks)

f). Define sterilization and mention 3 reliable methods of sterilization. (4 Marks)

g). Classify bacteria based oxygen requirements. (2 Marks)

- h). Mention 2 species causing opportunistic fungal infections. (1 Marks)
- i). Mention 2 DNA virus families containing envelope. (2 Marks)
- j). Briefly explain the Four Kochi's Postulates (4 Marks)

**Question 2 (15 Marks)**

Discuss the possible transmission ways of infections.

**Question 3 (15 Marks)**

Discuss the beneficial application of microbiology.

**Question 4 (15 Marks)**

Discuss the economic importance of bacteria with examples.

**Question 5 (15 Marks)**

Discuss the physical properties of viruses