

**TECHNICAL UNIVERSITY OF MOMBASA UNIVERSITY  
UNIVERSITY EXAMINATIONS 2015/2016  
FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR  
OF SCIENCE IN COMMUNITY HEALTH**

**AAB 4106: GENERAL MICROBIOLOGY**

**Time: 2 Hours**

**SUPPLEMENTARY/SPECIAL EXAMINATION  
SERIES MAY 2016**

**INSTRUCTIONS**

- Answer question ONE [compulsory] and any TWO questions

**Question ONE**

- (a) Distinguish between the Basic and Selective media (4 marks)
- (b) State the characteristics of a viral particle (4 marks)
- (c) Define each of the following terms. (4 marks)
- (i) Capsid
  - (ii) Nuclei Capsid
  - (iii) Capsomeres
  - (iv) Virion
- (d) Explain the meaning of the term sterilization (4 marks)
- (e) State Four economic importance of fungi (4 marks)
- (f) Differentiate between psychrophile and mesophile organisms (2 marks)
- (g) Describe the term 'Koch postulates'. (4 marks)
- (h) Differentiate between the following terms:
- (i) Bacteriostatic and bactericidal (2 marks)
  - (ii) Disinfectant and Anti-septic (2 marks)

**Question TWO**

With a well labelled diagram of a bacterial cell, explain the functions of the labelled parts  
[20 marks]

**Question THREE**

Discuss the safety precautions expected in a microbiology laboratory (20 marks)

**Question FOUR**

- (a) “Viruses are the ultimate parasite and are totally dependent on a host cell to replicate”.  
Discuss how the process of replication occurs in the human body. (14 marks)
- (b) Explain various ways in which infections may be acquired in the laboratory (6 mark)

**Question FIVE**

Discuss the growth of bacteria in the static environment. (20 marks)

