



MAASAI MARA UNIVERSITY

**REGULAR UNIVERSITY EXAMINATIONS
2018/2019 ACADEMIC YEAR**

SECOND YEAR, FIRST SEMESTER

**SCHOOL OF TOURISM AND NATURAL
RESOURCE MANAGEMENT
BACHELOR OF SCIENCE IN ANIMAL HEALTH
AND PRODUCTION**

COURSE CODE: AHP 2101

COURSE TITLE: MICROBIOLOGY I

DATE: 17TH APRIL 2019

TIME: 0830 - 1130 HRS

INSTRUCTIONS TO CANDIDATES

Answer **ALL** questions.

This paper consists of 2 printed pages. Please turn over.

ALL QUESTIONS ARE COMPULSORY:

- Q1. (a) With the aid of a table, give any six (6) differences between the prokaryotic cells and eukaryotic cells. **(6 marks)**
- (b) Discuss briefly the difference between the Gram positive and Gram negative bacteria cell wall. **(4 marks)**
- (c) Describe the difference between sterilization and disinfection. **(4 marks)**
- (d) Name two differential culture media. **(2 marks)**
- Q2. (a) Discuss briefly the factors that affect the growth and metabolism of bacteria. **(10 marks)**
- (b) Describe the bacterial cell counting techniques. **(10 marks)**
- Q3. (a) Define the following phrases:
- (i) Antimicrobial drug resistance. **(1 mark)**
- (ii) Sensitivity testing **(1 mark)**
- (b) Discuss the difference between the Constitutive Resistance and Acquired drug resistance. **(6 marks)**
- (c) Discuss the clinical importance of antimicrobial drug resistance. **(8 marks)**
- (d) State any two (2) measures that should be instituted to mitigate antimicrobial resistance. **(4 marks)**
- Q4 With the aid of a diagram, discuss the general morphology of a virus. **(20 mark)**
- Q5 (a) Discuss briefly, the replicative cycle of viruses. **(7 marks)**
- (b) List any three (3) methods of virus isolation. **(3 marks)**
- (c) Discuss the differences between the Enzyme Linked Immunosorbent Assay (ELISA) and Radioimmuno Assay (RIA) virus detection techniques. **(10 marks)**

*****The End *****