



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
0830 - 1130 HRS**

TIME:

INSTRUCTIONS TO CANDIDATES

Answer **ALL** questions.

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

ALL QUESTIONS ARE COMPULSORY:

- Q 1. (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)
- Q 2. (a) Discuss briefly the factors that affect the growth and metabolism of bacteria.
(10 marks)
- (b) Describe the bacterial cell counting techniques.
(10 marks)
- Q 3. (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)

Q With the aid of a diagram, discuss the general
4 morphology of a virus.

(20 mark)

Q (a) Discuss briefly, the replicative cycle of viruses.

5 **(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
