



UNIVERSITY
OF
JOHANNESBURG

FACULTY OF SCIENCE

DEPARTMENT OF BIOTECHNOLOGY & FOOD TECHNOLOGY (DFC)

MODULE: MCB1AE2/MCB1XB2 (MICROBIOLOGY 1)

CAMPUS: DFC

Special Examination 2019

DATE:

July 2019

SESSION:

ASSESSOR

Prof Ezekiel Green

INTERNAL MODERATOR

Dr. Bheki Dlamini

DURATION: 3 HOURS
MARKS 100

NUMBER OF PAGES: 2

SURNAME AND INITIALS: _____

STUDENT NUMBER: _____ **CONTACT NUMBER:** _____

NUMBER OF PAGES:

INSTRUCTIONS:

- 1 READ ALL THE INSTRUCTIONS AND ANSWER ALL QUESTIONS
- 2 HAND THE ANSWER SCRIPT AS WELL AS YOUR QUESTION PAPER

QUESTION 1

[25 Marks]

1. Name the 5 protists super group. (5 Marks)
2. Name and explain the two stages of protists reproduction. (5 Marks)
3. Describe the general characteristics of antimicrobial drugs (10 Marks)
4. Give 5 properties of an ideal antibiotic (5 Marks)

QUESTION 2

[25 Marks]

1. Outline the general characteristics of Ascomycota. (10 marks).
2. Briefly describe the plaque assays (10 Marks).
3. Discuss the viral genome (5 Marks)

QUESTION 3

[25 Marks]

1. Write short notes on the mechanism of action of the following media;
 - i. Blood agar (5 Marks)
 - ii. Eosin methylene blue agar (5 Marks)
 - iii. MacConkey agar (5 Marks)
 - iv. Mannitol Salt agar (5 Marks)
2. Explain the spread plate method. (5 Marks)

QUESTION 4

[25 Marks]

1. Define the following terms as they are used in microbiology.
 - i. Virologist
 - ii. Mycologist
 - iii. Bacteriologist
 - iv. Mold
 - v. Virion (2 Marks each)
2. A 24-year-old man presents to your clinic with several concerning symptoms. He states that he has been vomiting and has muscle cramps for the past two days, he is also releasing large amounts of watery diarrhea, and he is dehydrated. Describe the disease showing this classical signs and how you would identify the causative organism. (10 Marks)
3. Describe the viral lysogenic conversion (5 Marks)