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(Knowledge for Development)

KIBABII UNIVERSITY
UNIVERSITY EXAMINATIONS
2017/2018 ACADEMIC YEAR

FOURTH YEAR FIRST SEMESTER
MAIN EXAMINATIONS

FOR THE DEGREE OF BACHELOR OF SCIENCE

COURSE CODE: SBL423

COURSE TITLE: APPLIED MICROBIOLOGY AND BIOTECHNOLOGY

DATE: 31/07/2018

TIME: 9:00 – 11:00 AM.

INSTRUCTIONS TO CANDIDATES

Answer question **ONE** [1] and **ANY** other **TWO** [2] questions in this paper

TIME: 2 Hours

This paper consists of 2 printed pages. Please Turn Over



KIBUCO observes ZERO tolerance to examination cheating

Question 1

a). Define the following as used in microbiology

- i). Plant growth factors (4 MARKS)
- ii). Probiotics (2 MARKS)
- iii) Vaccine (2 MARKS)
- iv) Synthetic biology (4 MARKS)

b). **Explain** reasons why bacteria are suitably useful in the field of medicine (4 MARKS)

c). **Discuss** members of the kingdom monera that are used as delivery capsules medicine (8 MARKS)

d). **state** the characteristics of fungi that make them important in the field of medicine (4 MARKS)

Question 2

Explain how micro-organisms are applied in the field of agriculture. (20MARKS)

Question 3

Explain the impacts of biofertilizers under the following

a). Agronomic (10MARKS)

b). Environmental (10MARKS)

Question 4

Using examples discuss bacterial leaching of ores

(20MARKS)

Question 5

Discuss recent developments in biotechnology and recombinant DNA technology

(20 MARKS)