**CHUKA** 



### **UNIVERSITY**

#### UNIVERSITY EXAMINATIONS

# EXAMINATION FOR THE AWARD OF DEGREE OF MATSER OF SCIENCE IN BOTANY (MICROBIOLOGY AND BIOTECHNOLOGY)

**MICB 831: APPLIED MICROBIOLOGY** 

STREAMS: TIME: 2 HOURS

DAY/DATE: WEDNESDAY 07/04/2021 2.30 P.M – 4.30 P.M

### **INSTRUCTIONS:**

## Answer any three questions

1. (a) Describe characteristics of micro-organisms used for industrial purposes.

[10

marks]

(b) Discuss the role of microorganisms in waste management and pollution control.

[10

marks]

- 2. (a) Describe five products that are obtained through industrial microbiology. [10 marks]
  - (b) Outline five safety aspects in biotechnology that should be considered. [10 marks]
- 3. (a) Discuss the use of microorganisms in pest management. [10 marks]
  - (b) Explain five challenges associated with industrial microbial processes. [10 marks]
- 4. Discuss benefits of genetically engineered microorganisms. [20 marks]
- 5. Discuss the application of microbiology in past in agriculture. [20 marks]