



UNIVERSITY OF EMBU

2017/2018 ACADEMIC YEAR

SECOND SEMESTER EXAMINATIONS

**SECOND YEAR EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE
IN MICROBIOLOGY AND BIOTECHNOLOGY**

SBL 204: PROTEINS AND ENZYMES

DATE: APRIL 3, 2018

TIME: 11:00 AM- 1:00 PM

INSTRUCTIONS:

ANSWER ANY TEN (10) QUESTIONS (7 MARKS EACH)

1. Outline the physiological functions of proteins.
2. Distinguish between biological and chemical catalysts.
3. Give an account of enzymes-substrates binding models.
4. Explain the effects of enzyme concentration and pH on enzymes action.
5. Describe Michaeli's Menten equation of enzymes kinetics.
6. Differentiate between competitive and non competitive inhibition.
7. Explain briefly allosteric enzyme regulation mechanism.
8. Distinguish between hyaluronidase and collagenase.
9. Discuss the effects of neurotoxins on human health.
10. You have been appointed as a manager of an upcoming genetic engineering and biotechnology laboratory. Explain the common enzymatic reagents, you would order in your initial stock.
11. Describe the general structure and function of hemoglobin.
12. Discuss briefly Sec secretion pathway.

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