



TECHNICAL UNIVERSITY OF MOMBASA
FACULTY OF APPLIED AND HEALTH SCIENCES

Select department

UNIVERSITY EXAMINATION FOR:
BACHELOR OF TECHNOLOGY IN MICROBIOLOGY AND
BIOTECHNOLOGY

Type unit code : ABT 4308: PROTEINS AND ENZYMES II

END OF SEMESTER EXAMINATION

SERIES: APRIL 2016

TIME: 2 HOURS

DATE: 12 May 2016

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of Choose No questions. Attempt Choose instruction.

Do not write on the question paper.

Question ONE

- Highlight four mechanisms of controlling enzyme quantity (4mks)
- Describe the difference between reversible and irreversible reactions (4mks)
- Describe the bonds holding the tertiary structure of proteins (8mks)
- Outline the difference between enzyme activator and enzyme activation energy (4mks)
- Describe the differences between coenzymes and cofactors (6mks)
- Explain the role of an enzyme active site (4mks)

Question TWO

Using illustrations, describe different enzyme-substrate binding models (20mks)

Question THREE

Discuss five common characteristics of the active sites of enzymes (20mks)

Question FOUR

Describe the following forms of bi-substrate reactions

- a) Ordered sequential (10mks)
- b) Random sequential (10mks)

Question FIVE

Using appropriate examples, describe any two proteins with 3-dimensional structure (20mks)