



Technical University of Mombasa

Faculty of Applied and Health Sciences

DEPARTMENT OF PURE AND APPLIED SCIENCES

UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF
TECHNOLOGY IN INDUSTRIAL MICROBIOLOGY AND BIOTECHNOLOGY
BTMBT10M

ABT 4407 : PROTEIN FOR DIAGNOSIS

SEMESTER EXAMINATION

DECEMBER 2013 SERIES

2 HOURS

Instructions to candidates:

This paper consist of **FIVE** questions

Answer question **ONE** (compulsory) and any other **TWO** questions

QUESTION ONE

- a) Define the following terms
 - (i) Enzyme (2marks)
 - (ii) Diagnosis (2marks)
 - (iii) Antibody (2marks)
- b) Highlight the use of alkaline phosphatases in diagnosis (6marks)
- c) Outline the advantages of immobilized enzymes (4marks)
- d) Explain the analysis of blood glucose (8marks)
- e) Explain the various types of agglutination techniques in the diagnosis of a disease (6marks)

QUESTION TWO

Discuss the working principle of ELISA and the different types of this technique. **(20marks)**

QUESTION THREE

Discuss the factors affecting antigen-antibody reactions. **(20marks)**

QUESTION FOUR

Discuss the labels used in immunoassays **(20marks)**

QUESTION FIVE

Discuss the methods of enzyme immobilization **(20marks)**