



TECHNICAL UNIVERSITY OF MOMBASA
FACULTY OF APPLIED AND HEALTH SCIENCES
DEPARTMENT OF PURE & APPLIED SCIENCES

UNIVERSITY EXAMINATION FOR:
BTIMB

ABT4403 : THERAPEUTIC PROTEINS
END OF SEMESTER EXAMINATION

SERIES: APRIL 2016

TIME: 2 HOURS

DATE: Pick Date May 2016

Instructions to Candidates

You should have the following for this examination

Answer Booklet, examination pass and student ID

This paper consists of **FIVE** questions. Attempt question ONE (Compulsory) and any other TWO questions.

Do not write on the question paper.

Question ONE

- a. Identify the amino acid and position of disulfide bridges in HGH (2 marks)
- b. Explain the role of the following in an insulin molecule
 - i. Pre sequence (4 marks)
 - ii. Pro sequence (4 marks)
- c. List the five effects of insulin in the human body (5 marks)
- d. Describe the structure of Baculoviruses (5 marks)
- e. Differentiate between the following;
 - i. The structure of FSH and LH (5 marks)
 - ii. Function of INF β and TGF- β (5 marks)

Question TWO

Explain the following for cystic fibrosis

- a. Causes (10 marks)
- b. Symptoms (10 marks)

Question THREE

Highlight the

- a. process of superovulation and its significance using examples (10 marks)
- b. mechanism of action of HGH in adult female (10 marks)

Question FOUR

Describe therapeutic enzymes used as digestive aids (20 marks)

Question FIVE

Discuss the historical events that led to the discovery of insulin (20 marks)