



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF ENVIRONMENT & HEALTH SCIENCES

UNIVERSITY EXAMINATION FOR:

DIPLOMA IN COMMUNITY HEALTH AND HIV MANAGEMENT

DCHM 19M/YEAR 1/ SEMESTER1

ABT 2101 STRUCTURES OF BIOMOLECULES

END OF SEMESTER EXAMINATION

SERIES: AUGUST, 2019

TIME: 2 HOURS

Instructions to Candidates

This paper consists of FIVE questions

Answer question ONE (COMPULSORY) and any other TWO questions

This paper consists of two printed pages.

Mobile phones are NOT allowed in the examination room

QUESTION ONE. (30 MARKS)

- a) List THREE major groups of carbohydrates (3marks)
- b) State FOUR classes of Biomolecules (4marks)
- c) State THREE Functions of Biomolecules (2marks)
- d) State FOUR classes of Simple proteins based on their solubility. (4marks)
- e) List FOUR chemical agents of denaturation (2marks)
- f) Write the structure of the following :-
 - a. Serine (2marks)
 - b. Valine (2marks)
- g) Differentiate between:-
 - a. Reducing sugars and non-reducing (2marks)

- b. Saturated and unsaturated fatty acids (2marks)
- h) Define the meaning of the following terms:-
 - a. Rancidity (2marks)
 - b. Saponification (2marks)
- i) State THREE functions for essential fatty acids (3marks)

QUESTION TWO

- a) Discuss the classification of Proteins on Biological Function (8marks)
- b) State characteristics of denaturation. (7marks)

QUESTION THREE

- a) Explain the classification of lipids (7marks)
- b) Discuss the differences between enzymes and inorganic catalysts (8 marks)

QUESTION FOUR

- a) Explain the functions of non-protein amino acids (7marks)
- b) Outline iodine test for polysaccharides (8marks)

QUESTION FIVE

- a) Outline classification of enzymes (7marks)
- b) Classify carbohydrates on the basis of functional groups. (8marks)