



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

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MAIN EXAMINATION

AUGUST – DECEMBER 2018 TRIMESTER

FACULTY OF SCIENCE

DEPARTMENT OF BIOLOGY

REGULAR PROGRAMME

BIO 101: INTRODUCTION TO PSYCHOLOGY AND PHYSIOLOGY

Date: DECEMBER 2018

Duration: 2 Hours

INSTRUCTIONS: Answer Question ONE and any other TWO Questions

- Q1. a) Describe at least Five differences between eukaryotic and prokaryotic cell (5marks)
b) Describe pili the projections found on the surface of the prokaryotic cell (5marks)
c) Describe the vacuole (3marks)
d) State six modern tenets of the Cell Theory (3marks)
e) Describe levels of organization above the individual organism (5marks)
f) Describe the structure of viroids (5marks)
g) Outline the proteins of the cell membrane (4marks)
- Q2. Explain how a polypeptide is formed in a eukaryotic cell (20marks)
- Q3. Explain the basic chemical concept of the living cell (20marks)
- Q4. Explain how the glucose molecule is formed through the process of photosynthesis (20marks)
- Q5. Describe in detail the following cell organelles parts (10 mrks each),
a) Mitochondrion
b) Golgi bodies