



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

A. M. E. C. E. A

P.O. Box 62157

00200 Nairobi - KENYA

Telephone: 891601-6

Ext 1022/23/25

MAIN EXAMINATION

SEPTEMBER –DECEMBER 2021

FACULTY OF SCIENCE

DEPARTMENT OF COMMUNITY HEALTH AND DEVELOPMENT

REGULAR PROGRAMME

DCHD 111 &CHD 111: GENERAL BIOLOGY

Date: DECEMBER 2021

Duration: 3 Hours

INSTRUCTIONS: ANSWER ALL QUESTIONS IN THE BOOKLET PROVIDED

SECTION A SHORT ANSWER QUESTIONS

(30 MARKS)

- Q1. Define the following terms. **(8 marks)**
- a) Cell
 - b) Mitosis
 - c) Respiration
 - d) Gene
 - e) Intron
 - f) Exon
 - g) Anabolism
 - h) Homeostasis
- Q2. State the cell theory. **(3 marks)**
- Q3. Describe the function of the following cell organelles. **(8 marks)**
- a) Plasma membrane
 - b) Nucleus
 - c) Ribosomes
 - d) Mitochondria
- Q4. Outline five (5) characteristics living things. **(5 marks)**
- Q5. Write the Equation for cellular respiration **(6 marks)**

SECTION B: LONG ANSWER QUESTIONS (ANSWER ANY TWO QUESTIONS).

(40

MARKS)

- Q1. a) Describe the three (3) stages of respiration. **(9 marks)**
b) Illustrate the levels of organization of living things. **(11 marks)**
- Q2. a) Describe the bases present in DNA nucleotides. **(6 marks)**
b) Explain “mutation” and its leading causes? **(5 marks)**
c) Discuss any three genetic diseases. **(9 marks)**
- Q3. Using relevant cell diagrams compare and contrast prokaryotic cells and eukaryotic cells. **(20 marks)**
- Q4. Describe the following phases of mitosis cell divisions. **(20 marks)**
a) Prophase
b) Metaphase
c) Anaphase
d) Telophase
e) Cytokinesis

END