



MAASAI MARA UNIVERSITY
REGULAR UNIVERSITY EXAMINATIONS
2023/2024 ACADEMIC YEAR
FIRST YEAR FIRST SEMESTER
SCHOOL OF NATURAL RESOURCE,
ENVIRONMENTAL STUDIES & AGRICULTURE
CERTIFICATE IN TOURISM AND WILDLIFE
MANAGEMENT

COURSE CODE: CTW 002

**COURSE TITLE: INTRODUCTION TO
BIOLOGICAL SCIENCE I.**

DATE: 31/1/2024

TIME: 1430-1630 HRS

Instructions:

*Answer **ALL** questions in section A and any other **THREE** in section B.*

this paper consists of 2 printed pages. Please turn over

SECTION A (25MKS)

1. What are macronutrients? Give three examples of these essential nutrients in our body. (3mks)
2. Differentiate between mitosis and meiosis. (2mks)
3. In which form is glucose stored in the liver and muscles? (1mk)
4. Describe the theory of abiogenesis. (5mks)
5. The cell is the smallest basic unit of life. What is the role of a cell in an organism? (4mks)
6. Describe the role of the following organelles: (5mks)
 - a. Smooth endoplasmic reticulum
 - b. Mitochondria
 - c. Cell membrane
 - d. Centrioles
 - e. Chloroplast
7. What are somatic cells? Provide five examples of somatic cells in an organism. (5mks)

SECTION B (45MKS)

8. Mitosis is a form of asexual reproduction where a parent cell divides into two daughter cells. Describe the steps involved in mitosis division process. (15mks)
9. Describe five evidences that support the theory of natural selection. (15mks)
10. (a) What are the four bases of a DNA? (4mks)

(b) describe the structure of a DNA(1mk)

(b) Describe the process of DNA replication (10mks)
11. With the help of a diagram, describe the structural differences between a plant and animal cells. (15mks)

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