



KISII UNIVERSITY
UNIVERSITY EXAMINATIONS
SECOND YEAR EXAMINATION FOR THE AWARD OF THE
CERTIFICATE IN ANIMAL SCIENCE AND PRODUCTION
FIRST SEMESTER 2022/2023
(SEPTEMBER - DECEMBER, 2022)

ANHE 00376: BOTANY AND ZOOLOGY

STREAM: Y2 S1

TIME: 2 HOURS

DAY: FRIDAY, 3:00 P.M – 5:00P.M

DATE: 16/12/2022

INSTRUCTIONS:

- 1. Do not write anything on this question paper.**
- 2. Answer ALL Questions in Section A (Compulsory) and any other TWO Questions in section B.**

SECTION A [COMPULSORY] [30 MARKS]

QUESTION ONE

Name the functions of the following

- | | | |
|------|-------|----------|
| i. | Bud | (2marks) |
| ii. | Stem | (2marks) |
| iii. | Root | (2marks) |
| iv. | Leaf | (2marks) |
| v. | Fruit | (2marks) |

QUESTION TWO

Briefly describe the following terms.

- | | | |
|------|---------------|----------|
| i. | Nucleus | (1mark) |
| ii. | cell membrane | (1mark) |
| iii. | Cytology | (1mark) |
| iv. | Cell division | (1mark) |
| v. | Golgi bodies | (1mark) |
| vi. | Mitochondria | (1 mark) |
| vii. | RNA | (1 mark) |

- viii. DNA (1 mark)
- ix. Taxonomy (1 mark)
- x. Conservation (1 mark)

QUESTION THREE

- (a) Differentiate the following .
- i. Prokaryotic cell and eukaryotic cell. (2marks)
 - ii. Algae and plants (2marks)
 - iii. Asexual and sexual reproduction (2marks)
 - iv. RNA and DNA (2marks)
- (b) Explain the importance of zoos (6marks)

SECTION B [40 MARKS]

QUESTION FOUR

- (i) Explain beneficial bacteria. (10marks)
- (ii) Describe amoeba under the following using diagrams where possible. (10 marks)
- a. Feeding
 - b. Reproduction
 - c. Locomotion

QUESTION FIVE

- (a) Briefly explain the following stems of specific plant types.
- i. Tuber (2marks)
 - ii. Rhizome (2marks)
 - iii. Bulb (2marks)
 - iv. Grapevines (2marks)
 - v. Bryophytes (2marks)
- (b) Explain the structure of the stem in relation to its function. (5marks)
- (c) Differentiate between mitosis and meiosis giving examples appropriately. (5 marks)

QUESTION SIX

- (i) With the help of a well labeled diagram draw the plant cell. (10marks)
- (ii) Briefly describe the importance of botany and zoology. (10marks)