**MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY**

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**University Examinations 2016/2017**

FIRST YEAR, FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN FOOD SCIENCE AND TECHNOLOGY, BACHELOR OF SCIENCE IN FOOD SCIENCE AND MANAGEMENT, BACHELOR OF SCIENCE IN HUMAN NUTRITION AND DIETETICS, BACHELOR OF SCIENCE IN ANIMAL HEALTH AND PRODUCTION.

**SZV 3100: PRINCIPLES OF BIOLOGY**

**DATE: DECEMBER, 2016 TIME: 2 HOURS**

**INSTRUCTIONS: -** *Answer question* ***one*** *and any other* ***two*** *questions*

**QUESTION ONE (30 MARKS)**

1. Differentiate between the following; (4 marks)
2. Ecosystem and Community
3. Growth and Development
4. Outline the significance of seed dispersal. (5 marks)
5. Give the disadvantages of pesticides. (3 marks)
6. Explain the meaning of the following anatomical terms. (4 marks)
7. Median plane
8. Ventral
9. Describe the cell theory. (5 marks)
10. Distinguish between prokaryotic cells and eukaryotic cells. (5 marks)
11. Explain any two stages of cellular growth. (4 marks)

**QUESTION TWO (20 MARKS)**

Discuss the tissues in a vertebrate. (20 marks)

**QUESTION THREE (20 MARKS)**

1. Explain the factors affecting seed germination. (10 marks)
2. Discuss any five factors affecting plant growth. (10 marks)

**QUESTION FOUR (20 MARKS)**

Discuss the impacts of uncontrolled human population growth on the biosphere. (20 marks)

**QUESTION FIVE (20 MARKS)**

1. Discuss the processes used in migration of substances in the cell. (10 marks)
2. Discuss the adaptations of animal dispersed fruits and seeds. (10 marks)