



MERU UNIVERSITY COLLEGE OF SCIENCE & TECHNOLOGY

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University Examinations 2011/2012

SECOND YEAR, SECOND SEMESTER EXAMINATIONS FOR DIPLOMA IN
AGRICULTURE

BIO 0211: MICROBIOLOGY AND ZOOLOGY

DATE: APRIL 2012

TIME: 1½ HOURS

INSTRUCTIONS: Answer Section A and any other two questions in Section B and C

SECTION A

QUESTION ONE (30 MARKS)

- What is cephalization? (1 Mark)
- Differentiate between radial and bilateral symmetry. (2 Marks)
- Name the three domains of classification as given by the molecular biologist Carl Woese. (3 Marks)
- Name three basic characteristics that distinguish the phylum chordate. (3 Marks)
- Name the two body forms found in ciliarians. (2 Marks)
- Name any two classes of sub-phylum mandibulata. (2 Marks)
- Give the differences between millipedes and centipedes. (2 Marks)
- Give any three characteristics of viruses. (3 marks)
- What are bacteriophages? (1 Mark)
- Define a plasmid. (2 Marks)
- What is the difference between coccus and bacillus bacteria? (2 Marks)
- Draw a well labeled diagram to show a generalized structure of a virus. (4 Marks)
- Viruses are said to be on verge of life. Are they living or non-living. (3 Marks)

SECTION B (ANSWER ANY ONE QUESTION FROM THIS SECTION)

QUESTION TWO (15 MARKS)

- Describe the phases of bacterial growth curve. (8 Marks)
- Draw and label a bacterial growth curve. (7 Marks)

QUESTION THREE (15 MARKS)

Describe the economic importance of micro-organisms in industry and food and in the environment. (15 Marks)

SECTION C (ANSWER ANY ONE QUESTION FROM THIS SECTION)

QUESTION FOUR (15 MARKS)

- a. List and describe the five characteristics of living organisms. (10 Marks)
- b. Name the three types of primary germ layers and give an example of a tissue or organ derived from each germ layer. (5 Marks)

QUESTION FIVE (15 MARKS)

- a. Give characteristics of any two classes of sub-phylum vertebrata. (5 Marks)
- b. Describe the four types of defensive behaviours found in animals. (4 Marks)
- c. Describe and group animals into three groups on the basis of body cavity. (6 Marks)