

MAASAI MARA UNIVERSITY SCHOOL OF NATURAL RESOURCE MANAGEMENT AND ANIMAL SCIENCES

DEPARTMENT OF ENVIRONMENTAL STUDIES, GEOGRAPHY AND AGRICULTURE

UNIVERSITY EXAMINATIONS 2019/2020

THIRD YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF ENVIRONMENTAL STUDIES (BIOLOGY AND HEALTH)

EBH 3119 TERRESTRIAL TROPICAL COMMUNITIES AND THEIR CONSERVATION

DATE: TIME: 2 HOURS

INSTRUCTIONS TO CANDIDATES

- (a) Answer ALL the Questions in Section A
- (b) Answer ANY THREE Questions in Section B

SECTION A (25 MARKS)

Attempt ALL questions in this section.

- 1i. Explain the meaning of the term biodiversity (1 Mark).
- ii. State 4 levels of biodiversity (4 Marks).
- 2. Account for the high amounts of precipitation and the bimodal distribution of rains along the equator (5 Marks).
- 3. State 5 causes of biodiversity loss in Masa Mara Game Reserve (MMGR) (5 Marks)

- 4. Distinguish between 5 main types of savanna vegetation found in East Africa (**5 Marks**).
- 5. Explain the meaning of the following terms;
 - i. Equinox (1 Mark)
 - ii. ITCZ (1 Mark)
 - iii. Tropical lowland forest (1 Mark)
 - iv. K selection (1 Mark)
 - v. Coriolis Force (1 Mark)

SECTION B (45 MARKS)

- 6. Discuss the Theory of Island Biogeography and its application in tropical biodiversity conservation (**15 Marks**).
- 7. i. Explain what you understand by the term Human Wildlife Conflicts (3Marks).
 - ii. Discuss factors contributing to increase Human Wildlife Conflicts (7 Marks).
 - iii. Discuss how application of a new conservation paradigm can be a way of addressing the Human Wildlife Conflicts. (5 Marks).
- 8. Discuss the ecological benefits of fire (${f 15~Marks}$).
- 9. Discuss the principle of niche differentiation and resource partitioning and its ecological benefits and consequences in the tropical savannas and rain forests. (15 Marks)