MAASAI MARA UNIVERSITY

REGULAR UNIVERSITY EXAMINATIONS 2
2018/2019 ACADEMIC YEAR

THIRD YEAR SECOND SEMESTER EXAMINATIONS
FOR
THE DEGREE OF BACHELOR OF SCIENCE (BOTANY)

COURSE CODE: BOT 3211
COURSE TITLE: PLANT ECOLOGY

DATE: 25TH APRIL, 2019 **TIME: 1430 – 1630HRS**

Instructions

Answer **ALL** questions in section **A** and any other **TWO** selected from section **B.** Illustrate your answers with diagrams and give examples where appropriate.

This paper consists of 2 printed pages. Please turn over.

SECTION A (30 MARKS): ANSWER ALL QUESTIONS

1. Define the following terms
    a. Disturbance **(1 mk)**
    b. Ecological stress **(1 mk)**
    c. Succession **(1 mk)**
2. Describe the typical flora and fauna of Tundra and Taiga **(3 mks)**
3. Explain the reasons for the abundance of flora and fauna in the tropical forests **(3 mks)**
4. Give local and seasonal effects on climate **(3 mks)**
5. Discuss why the community composition changes as one moves up a mountain and down a continental shelf into the abyssal depths of the ocean **(3 mks)**
6. Describe three factors of microclimate that affect plant communities **(3 mks)**
7. Distinguish between primary and secondary forests **(3 mks)**
8. Describe the economic applications of a biodiverse ecosystem **(3 mks)**
9. Account for the main causes of biodiversity loss **(3 mks)**
10. State three conservation measures you would undertake in the Mara-Serengeti ecosystem **(3 mks)**

SECTION B (40 MARKS): ANSWER ANY TWO QUESTIONS

11. Classify Kenya in terms of ecological zones **(20 mks)**
12. Discuss the analytical and synthetic characteristics of plant communities **(20 mks)**
13.
    a. Describe in detail, the various grassland ecosystems **(12 mks)**
    b. Distinguish the characteristics of the lotic and lentic ecosystems **(8 mks)**
14. Describe an experimental procedure you would use to study plant populations in the Mara-Serengeti ecosystem **(20 mks)**

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