MAASAI MARA UNIVERSITY

**REGULAR UNIVERSITY EXAMINATIONS
2018/2019 ACADEMIC YEAR**

THIRD YEAR SECOND SEMESTER

SCHOOL OF TOURISM AND NATURAL RESOURCE MANAGEMENT

BACHELOR OF SCIENCE IN WILDLIFE MANAGEMENT

COURSE CODE: ENS 3203

COURSE TITLE: LANDSCAPE ECOLOGY AND GIS

DATE: 23RD APRIL 2019   TIME: 8.30AM-10.30AM

INSTRUCTIONS TO CANDIDATES

Answer **ALL** questions in section **A** and any other **THREE** in section **B.**

This paper consists of 2 printed pages. Please turn over

SECTION A: ANSWER ALL QUESTIONS (25 MARKS)

1. Define the following terms as used in landscape ecology **(5 marks)**
   a. Patch
   b. Landscape
   c. Habitat
   d. Ecotone
   e. Fragmentation

2. Describe any TWO (2) types of ecotones in landscape ecology.

   (4 marks)

3. Describe any TWO (2) tools that have been developed to describe landscape patterns. **(4 marks)**

4. Explain what is a wildlife corridor. **(2 marks)**

5. Describe FOUR (4) processes causing landscape patterns. **(4 marks)**

6. Briefly discuss the consequences of breaking up a habitat into smaller disconnected parcels. **(2 marks)**

7. Explain the two principal methods used in representing spatial data.

   (4 marks)

SECTION B: ANSWER ANY THREE QUESTIONS (45 MARKS)

8. Using describe examples five factors that influence landscape patterns. **(15 marks)**

9. Discuss five main ecological functions of corridors. **(15 marks)**

10. (i) Discuss GIS mapping and modelling analyses for landscape ecology. **(9 marks)**

(ii) Explain three reasons why landscape ecology is important to
      resource managers. **(6 marks)**

11. Discuss the sources of data, processing and the types of analysis undertaken landscape ecology.
      (15 marks)

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