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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