



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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