



MAASAI MARA UNIVERSITY

REGULAR UNIVERSITY EXAMINATIONS

2023/2024 ACADEMIC YEAR

FOURTH YEAR FIRST SEMESTER

**SCHOOL OF NATURAL RESOURCE, TOURISM
AND HOSPITALITY**

**BACHELOR OF SCIENCE IN FOREST
ECOSYSTEM MANAGEMENT**

COURSE CODE: FEM 4127

**COURSE TITLE: SUSTAINABLE FOREST
MANAGEMENT PRACTICES**

DATE: 13/12/2023

TIME: 1100-1300 HRS

INSTRUCTIONS TO CANDIDATES

Answer **All** the Questions in Section A and any **THREE** IN SECTION B

*This paper consists of **THREE** printed pages. Please turn over.*

SECTION A (25 MARKS) ANSWER ALL QUESTIONS IN THIS SECTION

1. Differentiate between **forest management practices** and **sustained forest yields** **(4 marks)**
2. a) Explain how climate change may increase or decrease forest fires **(3 marks)**
b) Outline uses of prescribed fire in forest land management **(3 marks)**
3. a) Define forest rotation **(1 mark)**
b) Highlight the importance of forest rotation as a land management practice **(4 marks)**
4. a) What do you understand by the word “**record keeping**” as used in forestry **(1 mark)**
b) Using suitable examples, briefly describe four (4) objectives of forest management **(4 marks)**
5. Briefly describe common techniques used in forestry management **(5 marks)**

SECTION B (45 MARKS) ANSWER ANY THREE QUESTIONS IN THIS SECTION

6. Investing in forestry will require key decisions to be made. Discuss five (5) key decisions making to be made for a successful investment in a forestry enterprise **(15 marks)**
7. Discuss any 5 (five) methods of firefighting in both natural and plantation forestry **(15 marks)**
8. Discuss major types of rotations in plantation forestry **(15 marks)**
9. Discuss any seven (7) factors which influence the behaviour of fire in any forest ecosystem **(15 marks)**
10. Assume that you are engaged by Kenya Forest Service as a lead forest Management Consultant Plan for Londiani Forest Station in Kericho County, Kenya which contains both natural forest and plantation forestry. Using suitable examples, outline and describe the main Components of forest management plan for that station **(15 marks)**

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