

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

**FACULTY OF APPLIED SCIENCES
DEPARTMENT OF ENVIRONMENTAL SCIENCE AND HEALTH
BACHELOR OF SCIENCE HONOURS DEGREE
FINAL EXAMINATIONS**

FOREST RESOURCES & RANGELAND MANAGEMENT: ESH 4206

May 2011

Time allowed: 3 Hours

Total Marks: 100

INSTRUCTIONS:

Answer any FOUR questions. Each question carries 25 marks.

Question 1

Explain and discuss five silvicultural activities in the management of forest resources.

Question 2

Analyse the effectiveness of the four management systems of indigenous woodlands in communal and resettlement areas of Zimbabwe.

Question 3

Veld fires are frequently occurring in Zimbabwe and is a cause for concern in the management of rangelands. Critically evaluate the role of fire in rangeland management.

Question 4

Discuss determinants of vegetation structure and composition in savanna ecosystems.

Question 5

- a) Giving examples explain clearly the factors behind woody species encroachment. (15)
- b) As a forest manager, discuss how you would control the spread of these woody species. (10)

Question 6

Evaluate plant and animal conservation strategies that are being applied in Zimbabwe and elaborate clearly how you can make them more efficient.

End of Question Paper

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

**FACULTY OF APPLIED SCIENCES
DEPARTMENT OF ENVIRONMENTAL SCIENCE AND HEALTH
BACHELOR OF SCIENCE HONOURS DEGREE
SUPPLEMENTARY EXAMINATIONS**

FOREST RESOURCES AND RANGELAND MANAGEMENT: ESH 4206

July 2011

Time allowed: 3 Hours

Total Marks: 100

INSTRUCTIONS:

Answer any FOUR questions. Each question carries 25 marks.

Question 1

Write a critical essay on determinants of savannas.

Question 2

Analyse the effectiveness of any four local legislation instruments in management of forest resources.

Question 3

- a) Discuss the impact of short tree rotations and long tree rotations on soils and aquatic ecosystem health.

(10 marks)

- b) Discuss silvicultural practices that can reduce impacts of these rotations on the environment.

(15 marks)

Question 4

Critically review the concept of multistorey farming in a peasant agricultural system in Zimbabwe.

Question 5

Discuss the constraints on rangeland production in a savanna ecosystem and how these can be overcome.

Question 6

Giving examples critically analyse the factors leading to deforestation.

End of question paper