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MASENO UNIVERSITY

UNIVERSITY EXAMINATIONS 2012/2013

SECOND YEAR SECOND SEMESTER EXAMINATIONS
FOR THE DEGREE OF BACHELOR OF SCIENCE IN
ENVIRONMENTAL SCIENCE WITH INFORMATION
TECHNOLOGY
(MAIN CAMPUS)

NES 207: FORESTRY AND FOREST MANAGEMENT

Date: 18th July, 2013

Time: 8.30 – 10.30 a.m.

INSTRUCTIONS:

Answer Question ONE and any other TWO questions.

1. (a) Differentiate between release cuttings and thinning as used in silvicultural practices. (4mks)
- (b) Describe how you would use Smalian's formula to determine the volume of a sawlog. (4mks)
- (c) (i) Explain the reasons for studying forest diseases. (8mks)
(ii) Explain the benefits of forest fires in forest management. (6mks)
- (d) Explain the ecological importance of forests. (8mks)
2. (a) Give an exemplary account on the importance of taking forest inventory in forest management. (8mks)
- (b) Critically examine silvicultural practices that would ensure a sustained forest cover. (12mks)
3. (a) (i) Contrast pure stands with mixed stands. (6mks)
(ii) Describe the formation of uneven-aged stands. (6mks)
- (b) Write about the beneficial effects of insects in forest ecosystem. (8mks)
4. Write exhaustively about forests management for multiple uses. (20mks)
5. (a) Discuss the consequences of deforestation. (12mks)
- (b) Suggest policy measures that may enhance sustainable forestry. (8mks)
6. (a) (i) Distinguish between sustained yield and normal forest. (4mks)
(ii) Explain the principles behind forest development in Kenya. (6mks)
- (b) Propose solutions to the different kind of conflicts between various users of forest resources. (10mks)