



MAASAI MARA UNIVERSITY

**REGULAR UNIVERSITY EXAMINATIONS
2017/2018 ACADEMIC YEAR
THIRD YEAR FIRST SEMESTER**

**SCHOOL OF TOURISM AND NATURAL RESOURCE
MANAGEMENT
BACHELOR OF FOREST ECOSYSTEMS
MANAGEMENT**

COURSE CODE: FOR 315

COURSE TITLE: FOREST PATHOLOGY

DATE: 24TH APRIL, 2018

TIME: 1100 - 1300HRS

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. (25 marks): Answer ALL questions

1. Define forest pathology and outline the core areas of coverage when it
(5 marks)
2. Identify the major groups of organisms which are responsible for infectious forest diseases
(4 marks)
3. As a forest pathologist explain how you can identify a previously unknown disease
(6 marks)
4. Explain the role of mycorrhizae in forest management (6 marks)
5. Explain the significance of Plant Import Permit (PIP) in disease control
(4 marks)

SECTION B (45 marks): Answer ANY THREE questions

6. (a) Discuss briefly the following terms in the context of disease cycle:
 - i. Monocyclic Pathogens
 - ii. Polycyclic pathogens
 - iii. Polyetic Pathogens

(9 marks)

- (b) Discuss briefly the factors that influence epidemic development
(6 marks)

7. Define the term “Damping off” and briefly discuss its classification, conditions favouring its spread and its control measures (15 marks)
8. An exotic forest disease with the following taxonomic features contributed towards the genesis of forest pathology evolution in Kenya.

Taxonomy of the disease causing organism:

Kindom: *Fungi*

Division: *Eumycota*

Subdivision: *Deuteromycotina*

Class: *Coelomycetes*

Order: *Sphaeropsidales*

Discuss the disease taking cognizance of the following:

- i. Identity of the fungus, its host and symptoms (5 marks)
- ii. Factors which enhance the disease (5 marks)
- iii. Effects on physiological function of the host and control (5 marks)

9. (a) Classify wood deteriorating agents and in each class, discuss briefly how the agents causes deterioration (11 marks)
- (b) How can the wood deterioration you mentioned in 9 (a) above be controlled (4 marks)

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