



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE & TECHNOLOGY
SCHOOL OF BIOLOGICAL AND PHYSICAL SCIENCES
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN
BIOLOGICAL SCIENCES
FOURTH YEAR FIRST SEMESTER 2018/2019 ACADEMIC YEAR
MAIN CAMPUS - REGULAR

COURSE CODE: SBI 3413
COURSE TITLE: PLANT PATHOLOGY
EXAM VENUE: STREAM: (BSC)
DATE: EXAM SESSION:
TIME: 2 HOURS

Instructions:

- 1. Answer ALL questions in Section A and Any two questions in Section B**
 - 2. Candidates are advised not to write on question paper**
 - 3. Candidates must hand in their answer booklets to the invigilator while in the examination room**
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SECTION A: SHORT ANSWER QUESTIONS (30 MARKS)

1. Use an illustration to explain the conditions necessary for a disease occurring in plant. (3 marks)
2. Classify plant pathogenic infections based on the extent of occurrence (3 marks)
3. Distinguish between ‘compound interest’ and ‘simple interest’ diseases (3 marks)
4. Outline the feeding mechanisms of plant parasitic nematodes (3 marks)
5. List six symptoms of bacteria wilt disease caused by *Ralstonia solanacearum* (3 marks)
6. Explain the infection process of *Agrobacterium tumefaciens* that causes crown gall disease (3 marks)
7. State three procedures for diagnosis of plant fungal diseases (3 marks)
8. List six methods used in the control of plant viruses (3 marks)
9. Name three ways by which parasitic *Striga hermontheca* may be controlled (3 marks)
10. Give six symptoms of *Pseudomonas syringae* pv *phaseolica* infection (3 marks)

SECTION B: ESSAY QUESTIONS (40 MARKS)

11. Describe different methods of plant disease control (20 marks)
12. Discuss the mechanisms of transmission of plant pathogenic viruses (20 marks)
13. Discuss the disease cycle of the root rot nematodes of the genus *Meloidogyne* (20 marks)
14. Discuss the phenomenon of infection by plant pathogenic organisms (20 marks)