



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE & TECHNOLOGY**  
**SCHOOL OF BIOLOGICAL, PHYSICAL, MATHEMATICS AND ACTUARIAL**  
**SCIENCES**

**UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF**  
**SCIENCE IN BIOLOGICAL SCIENCES**

**4<sup>th</sup> YEAR 1<sup>st</sup> SEMESTER 2022/2023 ACADEMIC YEAR**

**MAIN CAMPUS - REGULAR**

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**COURSE CODE: SBB 1405**  
**COURSE TITLE: PLANT PATHOLOGY**  
**EXAM VENUE: ZOO LAB                      STREAM: (BSC)**  
**DATE: 6/12/2022                              EXAM SESSION: 15.00-17.00PM**  
**TIME: 2 HOURS**

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**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. Briefly describe the process leading to disease incidence in plants (3 marks)
2. State three ways in which plant diseases are categorized in relation to the causative agent  
(3 marks)
3. State three ways in which plant pathogen infects their host (3 marks)
4. Explain three survival strategies adopted by the phytopathogens (3 marks)
5. Differentiate between soil invaders and inhabitants (3marks)
6. Explain three ways in which pathogens can be dispersed within the field  
(3 marks)
7. State three conditions necessary for disease to occur (3 marks)
8. Describe three key toxins which enhances the infective nature of plant pathogens  
(3 marks)
9. State three structural defensive mechanisms adopted by plants to prevent pathogenic infection (3 marks)
10. State three physiological activities of a healthy plant (3 marks)

### **SECTION B: ESSAY QUESTIONS (40 MARKS)**

11. Discuss five landmarks towards the discovery of plant diseases (20 marks)
12. Plant pathogens have diverse survival mechanisms. discuss the survival strategy of a named plant pathogen (20 marks)
13. Describe five ways by which human beings aid in dispersal of plant pathogens (20 marks)
14. Describe the application of biotechnology in management of plant diseases (20 marks)