JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE & TECHNOLOGY

SCHOOL OF BIOLOGICAL AND PHYSICAL SCIENCES

DEPARTMENT OF BIOLOGICAL SCIENCES

UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF EDUCATION (SCIENCE) WITH IT

4th YEAR SECOND SEMESTER 2016/2017 ACADEMIC YEAR

MAIN CAMPUS - REGULAR

COURSE CODE:	**SBT 403**
COURSE TITLE:	**PLANT PATHOLOGY**
EXAM VENUE:	**STREAM: (BED SC)**
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**

SECTION A: SHORT ANSWER QUESTIONS (30 MARKS)

1. Highlight three ways which plant disease pathogens affect plants. (3 marks)
2. Explain how the evaluation of plant disease may be done. (3 marks)
3. State the Koch's postulates. (3 marks)
4. Explain three methods of disease management. (3marks)
5. Explain three sources of inoculum. (3 marks)
6. Distinguish between parasitism and pathogenesis. (3 marks)
7. Explain pathogen factors that influence development of epidemic. (3 marks)
8. a) Explain the disease triangle. (2 mark)

   b) State two symptoms of the blast disease of rice. (1 mark)

9. Outline the main steps involved in disease assessment. (3 marks)

10. a) Outline two plant diseases caused by pathogenic fungi. (1 mark)
    b) Explain plant defense mechanisms against pathogens. (2 marks)

SECTION B: ESSAY QUESTIONS (40 MARKS)

11. Discuss disease development in plants. (20 marks)
12. Give an account of the development of late blight disease of potato, its symptoms and control measures. (20 marks)
13. Describe the mechanisms of transmission of plant diseases. (20 marks)

14 a). A farmer in Busia has called to report a wilting disease she has noticed on her potatoes. You suspect the causative agent is a bacterial species. Discuss the preliminary diagnostic steps you would take to identify the disease. (10 marks)

   b). Discuss disease predisposition in plants (10 marks)