

**BOWEN UNIVERSITY IWO**  
**COLLEGE OF AGRICULTURE, ENGINEERING AND SCIENCE**  
**MICROBIOLOGY PROGRAMME**  
**2022/2023 FIRST SEMESTER EXAMINATION**  
**MCB 415: PHYTOPATHOLOGY THEORY**

**Instructions: Answer any three (3) questions.**

**Time: 2 hours 15 mins**

1. a. Describe the term 'plant disease' and discuss five effects of plant diseases on man. (15 marks)  
b. Explain the role of the environment in plant disease complex (10 marks)
2. a. Describe four (4) diseases of cotton transmitted by insects, state the causal organism and common management practices. (18 marks)  
b. What are the uses of cotton plants and the effects of diseases on cotton production in Nigeria? (7 marks)
3. a. Discuss four (4) fungal diseases of cassava, the causal organisms and symptoms (16 marks)  
b. Briefly discuss the antibiosis mechanism of biological control citing specific examples. (9 marks)
4. Discuss any five (5) eradicated and inoculum-reducing cultural practices for controlling plant diseases. (25 marks)
5. a. Write extensively on Koch's postulates as criteria for identifying disease-causing microbes in a diseased specimen. (10 marks)  
b. Describe briefly the various mechanisms by which plants resist infections (15 marks)