



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY, JABI - ABUJA**  
**FACULTY OF SCIENCE**  
**Department of Pure and Applied Sciences**  
**June 2021 Examination** 1234

**BIO 414: Applied Entomology**

**Time: 2½ Hours**

**Credit Units: 3**

**Instruction: Answer FIVE questions only. QUESTION 1 is compulsory.**

- 1a. Outline the conditions that determine the choice of stimulus to use for behavioural manipulation in pest control. (6 marks)
- (b) State 8 limitations of Sterile Insect Programmes. (8 marks)
- 1c. Describe the basis and use of sterile fly in prevention of sleeping sickness in endemic areas. (8 marks)
2. Discuss volatilization in relation to the environmental impact of pesticides on the soil (12 marks)
- 3a. Give a brief description of the binomial system of nomenclature used in living organism classification (10 marks)
- 3b. Give the binomial classification of cockroach under the following headings  
Kingdom  
Phylum  
Class  
Order (2 marks)
4. Describe the genetic basis of plant resistance to insects. (12 marks)
5. Discuss the following categories of phytophagous insects  
Leaf chewers  
Plant Miners  
Plant Bores (12 marks)
6. Describe the occurrence and types of Insect-Plant Co-evolution with examples. (12 marks)