



National Open University of Nigeria

Plot 91, Cadastral Zone, NnamdiAzikiwe Expressway, Jabi - Abuja

Faculty of Science

COURSE CODE: BIO 414 (3 units)

COURSE TITLE: APPLIED ENTOMOLOGY

TIME ALLOWED: 2 ½ HOURS

Instruction: Question 1 is compulsory and any other three questions.

1a. Explain the categories of injurious insects. Give at least 1 example of each group (6marks)

1b. Based on their mode of entry, classify insecticides into 4 groups give one example in each group (8marks)

1c. List 4 circumstances for the application of Sterile-Insect Technique (4marks)

1d. Elucidate 4 attributes that determine the choice of a stimulus to use for the behavioral manipulation of an insect. (4 marks)

2a. Explain the statement, 'bees exhibit complete metamorphosis'. (4marks)

2b. Describe the first two stages involved in the complete metamorphosis of bees (8marks)

3a. Explain the term Sterile -Insect Technique? (4marks).

3b. Enumerate 8 limitations of Sterile-Insect Programme (8marks)

4a. What are Pheromones? (4 marks)

4b. Explain the following terms

i. Primer pheromones (3marks)

ii. Releaser pheromones (3 marks)

4c. List 4 types of Releaser pheromones (2marks)

5a. Give the definition of Integrated Pest Management by Luckmann and Metcalf (1994)

5b. Write short notes on the following

i. Insect Parasitoids (5marks)

ii. Insect Predators (5marks)

6. a. i. Write out the classification of the spider mites from Kingdom –suborder (2½marks)

ii. Name the mite that causes scabies (½mark)

6. b. Explain the action of following parasitic mites invertebrates mentioning their families (9marks)

i. sarcoptic mites ii. psoroptic mites

iii. fur mite iv. house dust mites

v. chiggers vi. walking dandruff