



NATIONAL OPEN UNIVERSITY OF NIGERIA
PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY, JABI - ABUJA
FACULTY OF SCIENCE
Department of Pure and Applied Sciences
OCTOBER/NOVEMBER, 2019 EXAMINATIONS

BIO 414: Applied Entomology

Time: 2½ Hours

Credit Units: 3

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

- 1a. Define the term 'systematics' (2 marks)
- 1b. Give a brief description of the body structure of mites (4marks)
- 1c. Identify 3 parasitic mites of invertebrates (3marks)
- 1d. What is the feeding habit of sand flies? (4 marks)
- 1e. Discuss the qualities of an ideal pesticide (9marks)

- 2a. Define the term 'classification' (2marks)
- 2b. Classify insects based on economic importance (1 mark)
- 2c. Rationalize the need for classification? (3 marks)
- 2d. Give 6 symptoms of insects affected by antibiosis (6marks)

- 3a. List three productive insects and what they produce (6marks)
- 3b. i. What is tolerance? (2 mark) ii. List 4 factors involved in plant tolerance (4 marks)

- 4a. Which order represents the most medically important group of insect? (1 marks)
- 4b. Describe the process of honey production by bees (7 marks)
- 4c. State 4 reasons why insects are considered as pests (4 marks)

- 5a. Give six examples of the major economically important insects. (3 marks)
- 5b. Distinguished between queen bees from worker bees (3marks)
- 5c. Write briefly on the life cycle of a bee. (6 marks)

- 6a. Justify the extensive distribution of insects (5 marks)
- 6b. State seven characteristics of insects. (7 marks)