



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
**PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY, JABI - ABUJA**  
**FACULTY OF SCIENCE**  
**Department of Pure and Applied Sciences**  
**SEPTEMBER 2020\_1 EXAMINATION**

**COURSE CODE: BIO407**

**COURSE TITLE: BASIC ENTOMOLOGY**

**CREDIT: 2 UNITS**

**TIME ALLOWED: 2 HOURS**

**INSTRUCTION: ANSWER NUMBER ONE (1) AND ANY OTHER THREE (3) QUESTIONS**

- 1a. Explain in detail the peculiar factors that made the Class insecta to be ecologically successful. **(7 marks)**
- b. List the characteristics of the order Isoptera. **(7 marks)**
- c. Give the functions of the sensory receptors found on the insect antennae. **(5 marks)**
- d. List eight types of insect antennae. **(4 marks)**
- e. State the Economic Importance of Flies. **(2 marks)**
  
- 2a. i. Define Moulting. **(1 mark)**  
ii. Describe the process of Moulting in insects. **(6 marks)**
- b. Explain the behavioral Adaptations of Termites **(4 marks)**
- c. Explain behavioral Adaptations of Bees. **(4 marks)**
  
- 3a. Differentiate between open and closed respiratory systems in insects. **(4 marks)**
- b. Describe the female reproductive system of insects. **(6 marks)**
- c. Write notes on the evolution of insects **(5 marks)**
  
- 4a. Describe the process of blood circulation in insects. **(8 marks)**
- b. List the major components of blood of insects. **(4 marks)**
- c. List three importance of blood circulation in insects. **(3 marks)**
  
- 5a. List 5 parts of reproductive system of insects. **(5 marks)**
- b. Explain the functioning of the excretory system in insects. **(5 marks)**
- c. List five families found in the order Diptera. **(5 marks)**