



NATIONAL OPEN UNIVERSITY OF NIGERIA

National Open University of Nigeria
Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja
Faculty of Science

DEPARTMENT OF BIOLOGICAL SCIENCES

2022_2 EXAMINATION

COURSE CODE: BIO 407

COURSE TITLE: BASIC ENTOMOLOGY

CREDIT UNIT: 2 UNITS

TIME ALLOWED: 2 HOURS

INSTRUCTION: ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS.

1. a. Outline the factors that contribute to the success of insects. 10marks
b. Write short note on the following groups insects:
 - i. Odonata 5marks
 - ii. Dictyoptera 5marks
 - iii. Orthoptera 5marks
 - iv. Isoptera 5marks

2. a. What is tagmatisation? 5marks
b. Name three distinctive tagma of insects. How many segments does each tagma possess? 6marks
c. Classify the head of insects based on its orientation with the mouthpart 3marks
d. State the economic importance of the following orders of insects:
 - i. Aphaniptera (Fleas) 3marks
 - ii. Hemiptera 3marks

3. a. i. Describe the structure of antenna in insects 3marks
ii. List five different types of antenna. 5marks
iii. What are the main functions of antenna in insects? 4marks

- b. Define the following terms:
 - i. Veination. 2marks
 - ii. Vails. 2marks
 - iii. Spiracles. 2marks
 - iv. Taenidia. 2marks

- 4. a. i. What is Maxilla. 5marks
 - ii. State the functions of maxilla. 3marksbi. Describe the thorax of an insect. 4marks
 - iii. List the three divisions of the thorax. 3marks
 - iv. Enumerate any five beneficial effects of insects. 5marks

- 5. a. What are social insects? 5marks
 - b. Write short notes on the following:
 - a. King and queen 3marks
 - b. Workers 6marks
 - c. Soldiers 6marks