



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
2023_1 POP EXAMINATION231

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. Describe the evolution of insects 10marks
b. Outline five beneficial and five detrimental effects of insects 10marks
c. State the economic importance of:
 - i. Flies 5marks
 - ii. Hymenoptera 5marks

2. Write short note on the following Orders of insects with the aid of diagrams:
 - i. Anoplura 5marks
 - ii. Coleoptera 5marks
 - iii. Lepidoptera 5marks
 - iv. Diptera 5marks

3. a. Name two types of eyes in insects 2marks
b. i. Define dorsal ocellus. 2marks
ii. Outline the features of dorsal ocellus. 6marks
iii. State two functions of dorsal ocellus. 4marks
c. Write briefly on the following:
 - i. Parts of Ommatidium. 2marks
 - ii. Functions of ommatidia. 4marks

4. a. i. Describe the mouthpart of an insect. 3marks
ii. List two types of mouthpart in insects based on their dietary modifications in insects 4marks
iii. Describe these two mouthparts of insects. 10marks
b. What is Tagmina? 3marks

5. a. i. List six segments of the locomotive structure of insects. 6marks
ii. Giving examples, state the different modifications of the leg of insects. 5marks
b. i. List three distinct regions of the digestive system of insects. 3marks
ii. Describe any one of the regions. 6marks