

BINDURA UNIVERSITY OF SCIENCE EDUCATION
BIOLOGICAL SCIENCES DEPARTMENT
BScBZH
INTRODUCTORY ENTOMOLOGY (BZH222)

EXAMINATION
2 HOURS (100 MARKS)

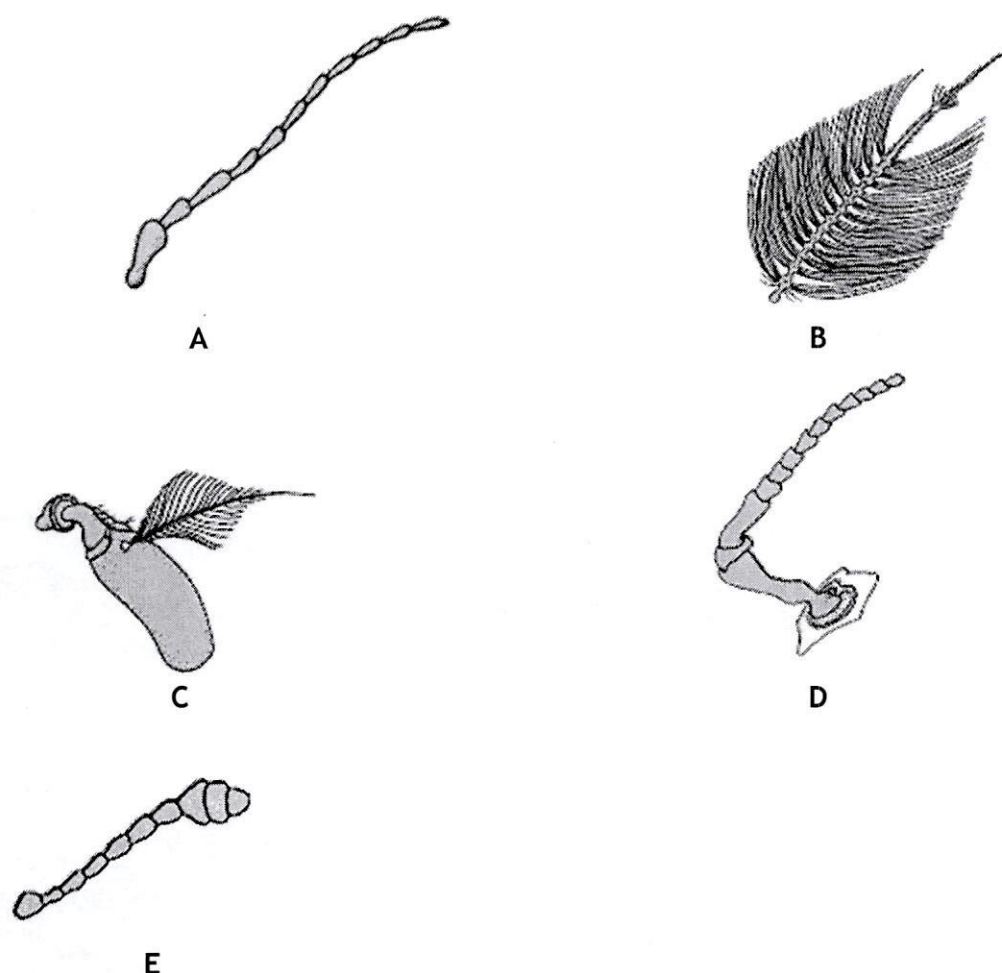
JUN 2023

INSTRUCTIONS TO CANDIDATES

Answer FOUR questions. You MUST answer QUESTION 1 (Section A) and any THREE questions from section B. Each question carries 25 MARKS. Where a question contains sub-divisions, the mark value of each sub-division is given in brackets. Illustrate your answer where appropriate with large clearly labelled diagrams. You should not spend more than thirty minutes on each question.

SECTION A (COMPULSORY)

1. (a). Figure 1 shows the different types of antennae found in some insects.



- (a) Name the antennae labelled A to E and state the order in which this antenna is found.
(10 marks)
- (b) Explain adaptations of mouthparts of an insect for biting and chewing.
(15 marks)

SECTION B

2. Describe the general characteristics of any **FIVE** insect orders.
3. (a) Describe the different types of insect pupae. (10 marks)
(b) Using suitable examples, compare the damage caused by insects that undergo complete and incomplete metamorphosis. (15 marks)
4. Relate the structure of the insect integument to its function.
5. (a) Describe the tracheal system in insects. (15 marks)
(b) Explain the ecological significance of excretion and osmoregulation in insects. (10 marks)
6. Discuss the medical and agricultural importance of insects.

END OF EXAMINATION QUESTION PAPER