

**2023**  
**M.Sc.**  
**Fourth Semester**  
**DISCIPLINE SPECIFIC ELECTIVE – 03**  
**ZOOLOGY**  
*Course Code: MZOD 4.11(D)*  
(Entomology - II)

*Total Mark: 70*  
*Time: 3 hours*

*Pass Mark: 28*

*Answer five questions, taking one from each unit.*

**UNIT-I**

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| 1. Give an account on insect life history pattern.                     | 14 |
| 2. (a) Explain the mechanism of caste determination in social insects. | 9  |
| (b) Write a note on voltinism.   | 5  |

**UNIT-II**

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| 3. (a) Describe the life cycle of silk moth. | 9  |
| (b) Write the composition and uses of lac.   | 5  |
| 4. (a) Discuss the types of honey bees.      | 10 |
| (b) Write a note on insects as pollinator.   | 4  |

**UNIT-III**

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| 5. Explain the various type of hormonal control of insect pests. | 14 |
| 6. Discuss in detail the concept of insect pest.                 | 14 |

**UNIT-IV**

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| 7. State how pest injury and quality of produce are related.                    | 14 |
| 8. Write notes on life cycle, damage, and control of <i>Sitophilus oryzae</i> . | 14 |

## UNIT-V

9. Elucidate on the life cycle, damage, and control of *Climax sp.* 14
10. Write the life cycle, damage, and control of *Musca domestica.* 14
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