Reg. No. \_\_\_\_\_\_\_\_\_\_\_\_\_

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**End Semester Examination – Nov / Dec – 2019**

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| **Code :** | **18AG1011** | **Duration :** | **3hrs** |
| **Sub. Name :** | **FUNDAMENTALS OF ENTOMOLOGY** | **Max. Marks :** | **100** |

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| **Q. No.** | **Questions** | **Course Outcome** | **Marks** |
| **PART – A (20 X 1 = 20 MARKS)** | | | |
| 1. | "Insect Pests of Crops" is a book written by \_\_\_\_\_\_\_\_\_\_ . | CO1 | 1 |
| 2. | Cuticle is secreted by the \_\_\_\_\_\_\_\_\_\_. | CO1 | 1 |
| 3. | The interval between one moult and the next is known as \_\_\_\_\_\_\_\_\_\_ . | CO1 | 1 |
| 4. | When the sclerites are functional in origin it is called as \_\_\_\_\_\_\_\_\_\_ . | CO1 | 1 |
| 5. | The hormone responsible for melanization is \_\_\_\_\_\_\_\_\_\_ . | CO1 | 1 |
| 6. | The antenna looking like a string of beads is \_\_\_\_\_\_\_\_\_\_ . | CO1 | 1 |
| 7. | The inner lining of the foregut is called as \_\_\_\_\_\_\_\_\_\_ . | CO1 | 1 |
| 8. | Pinning region for bug is \_\_\_\_\_\_\_\_\_\_ . | CO1 | 1 |
| 9. | The organ present in the first abdominal segment of grasshopper is \_\_\_\_\_\_\_\_\_\_ . | CO3 | 1 |
| 10. | The black spot present in the wings of dragonfly is called as \_\_\_\_\_\_\_\_\_\_ . | CO3 | 1 |
| 11. | The term ecology was coined by \_\_\_\_\_\_\_\_\_\_ . | CO2 | 1 |
| 12. | Lac insect belongs to the order \_\_\_\_\_\_\_\_\_\_ . | CO3 | 1 |
| 13. | Father of Host Plants Resistance is \_\_\_\_\_\_\_\_\_\_ . | CO2 | 1 |
| 14. | Hadda beetle belongs to the family \_\_\_\_\_\_\_\_\_\_ . | CO3 | 1 |
| 15. | Sweet Potato Weevil belongs to the family \_\_\_\_\_\_\_\_\_\_ . | CO3 | 1 |
| 16. | The formulation EC means \_\_\_\_\_\_\_\_\_\_ . | CO2 | 1 |
| 17. | MRL means \_\_\_\_\_\_\_\_\_\_ . | CO2 | 1 |
| 18. | The type of pupa in Diptera is \_\_\_\_\_\_\_\_\_\_ . | CO3 | 1 |
| 19. | Antenna is absent in the order \_\_\_\_\_\_\_\_\_\_ . | CO3 | 1 |
| 20. | Antennules are present in \_\_\_\_\_\_\_\_\_\_ . | CO1 | 1 |

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| **PART - B (10 X 5 = 50 MARKS)**  **(Answer any 10 from the following)** | | | |
| 21. | Explain the factors that determine insect abundance. | CO2 | 5 |
| 22. | List out different types of mouthparts and briefly explain biting and chewing. | CO1 | 5 |
| 23. | Write down the wing coupling mechanism in insects. | CO1 | 5 |
| 24. | Briefly explain the Newer Insecticide molecules. | CO2 | 5 |
| 25. | List out the characteristics of Arthropods. | CO1 | 5 |
| 26. | Explain the different types of Pupae with examples. | CO1 | 5 |
| 27. | Write the morphological characters of the family Apidae. | CO3 | 5 |
| 28. | Briefly explain the History of IPM. | CO2 | 5 |
| 29. | Write a brief note on Acrididae and Tettigonidae. | CO3 | 5 |
| 30. | Write down the History of Entomology in India. | CO1 | 5 |
| 31. | Explain the Excretory system of Insects. | CO1 | 5 |
| 32. | Explain the structure and types of Insect head. | CO1 | 5 |

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| **PART – C (2 X 15 = 30 MARKS)**  **(Answer any 2 from the following)** | | | | |
| 33. | a. | Write biefly the biotic factors influencing the population growth of Insects. | CO2 | 8 |
| b. | Briefly explain the components of IPM. | CO2 | 7 |
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| 34. | a. | List out the taxonomic characters of the Order Coleoptera. | CO3 | 7 |
| b. | List out the taxonomic characters of the order Orthoptera. | CO3 | 8 |
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| 35. | a. | Explain the Digestive system of Insects. | CO1 | 8 |
| b. | Write in detail the classification of insecticides based on the mode of action. | CO2 | 7 |