

M.Sc. (Ag.) Examination, 2018
Semester-II
Agricultural Entomology
Course- AEN-503
(Insect Taxonomy)

Time: Three Hours

Full Marks: 50

Questions are of value as indicated in the margin

Answer **any five** questions

1. Illustrate the salient order characters of white ants. Why are they termed as social insects? Highlight on the economic importance of the order Diptera? 5+3+2=10
 2. What is biological species? Mention the different taxonomic characters for identification of a species. What are the difficulties in correct identification of a biological species? 2+5+3=10
 3. Write the family characters of the following insects: 5×2=10
 - (a) *Scirtothrips dorsalis*
 - (b) *Myzus persicae*
 - (c) *Coccinella septumpunctata*
 - (d) *Leptocorisa acuta*
 - (e) *Oryctes rhinoceros*
 - (f) *Orseolia oryzae*
 - (g) *Bombyx mori*
 4. Differentiate between the characters of Homoptera and Heteroptera. Write down the characters of the largest phytophagous order. 5+5=10
 5. Differentiate the following (**any four**): 2.5×4=10
 - (a) Moths and butterflies
 - (b) Acrididae and Tettigonidae
 - (c) Parapatric and Sympatric species
 - (d) Blattidae and Mantidae
 - (e) Tubulifera and Terebrantia
 - (f) α and β taxonomy
 6. Describe the taxonomic characters of the largest parasitoid order. Name the important phytophagous family of this order along with examples. Give an account of the economic importance of this order. 6+1+3=10
 7. Write short notes (**any four**) 2.5×4=10
 - (a) Objectives of classification
 - (b) Link between apterygotes and pterygotes
 - (c) Pseudococcidae
 - (d) Components of biological classification
 - (e) Neuroptera
 - (f) Binomial Nomenclature
 8. Write broad notes on the following (**any two**): 2×5=10
 - (a) Strepsiptera
 - (b) Utility of DNA Barcoding in Insect Taxonomy.
 - (c) Type specimens
 - (d) Coleoptera
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