

M.Sc. (Ag.) Examination, 2017
Semester-II
Plant Protection
Course – AEN-503
(Insect Taxonomy)

Time: 3 Hours

Full Marks: 50

Questions are of value as indicated in the margin.

Answer **any five** questions

1. Define taxonomy. Briefly explain hierarchic classification. What are the stages of taxonomy? Describe the binomial system of nomenclature with an example.
2+3+2+3=10
 2. Define species and write attributes of biological species. What are the difficulties in identifying the biological species? What is sibling species? Write the taxonomic characters of sub-class Apterygota.
3+3+1+3=10
 3. Describe the taxonomic characters of the order Lepidoptera. Write five important families of this order with one example of each. Write taxonomic characters of any two of them.
4+2+4=10
 4. Write the taxonomic characters of the order Orthoptera. Explain the family characters of long horned and short horned grasshoppers.
4+6=10
 5. Write the family characters of the following insects (**any four**): 2.5×4=10
a) Gall midge b) Lady bird beetle c) Jassid d) Mealy bug e) Aphid g) Lead folder
 6. Differentiate the following (**any four**): 2.5×4=10
a) Terebrantia and Tibulifera b) Beetles and Weevils
c) Homoptera and Heteroptera d) Symphyta and Apocrita
e) Holotype and Lectotype
 7. Classify the class insect into various sub-classes and orders with example. What are the agricultural importance of the order Hymenoptera and Isoptera?
6+4=10
 8. Write short notes on **any four**: 2.5×4=10
a) Coreidae b) Bostrichidae c) Chalcididae d) Scarabaeidae e) Delphacidae
f) Chrysomelidae
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