Course Outcomes of B.Sc. (Ag) II sem. (Entomology)

Course outcomes of Introductory Entomology (Paper Code: D294)

- Describe general introduction to Phylum-Arthropoda, its various classes and their distinguishing characters with particular reference to class insecta.
- Discuss about insect morphology;body wall-structure, composition and functions.
- Clarify structure and functions ofinsect head.
- Explain modifications of antennae.
- Describe in detail the biting and chewing, piercing and sucking, sponging, siphoning, chewing, and lapping type mouthparts of insect.
- Elucidatestructure and functions of insect thorax.
- Describemodifications of legs and wings, wing coupling apparatus and wing venation.
- Clarify segments and appendagesof insect abdomen.
- Elucidate insect anatomy with digestive, excretory, reproductive, circulatory, respiratory and nervous systems of grass hopper.
- Discuss about sense organs;structure and functions of ocelli, compound eye and johonston's organ.
- Elucidate the post-embryonic development including ecdysis, instars, types of larvae and pupae.
- Explain different types of metamorphosis in insects.
- Describe insect classification of order Orthoptera (Acrididae).
- Describe insect classification of order Isoptera (Termitidae).
- Discussabout insect classificationof order Hemiptera (Coreidae,Pyrrhocoreidae, Lophopidae, Aleurodidae, Jassidae, aphidae, Coccidae, Lacciferidae.)
- Describe insect classificationof order Coleoptera (Dermestidae, Coccinellidae, BruchidaeChrisomelidae; Curculionidae, Tenebrionidae, Scarabaeidae).
- Explain insect classificationof order Lepidoptera (Gelechiidae, Pyralididae, Noctuidae, Cymbidae, Papilionidae, arctiidae and Bombycidae).
- Describe insect classificationof order Hymenoptera (Tenthredinidae and Apidae).
- Describe insect classificationof orderDiptera(Trypetidae).

Course Outcomes of B.Sc. (Ag) IVsem. (Entomology)

Course outcomes of Economic Entomology (Paper Code: D-495)

- Describe in detail the economic importance, nature and extent of damage, life history and management of the major insect pests of Paddy (*Leptocorisavariconis, Hieroglyphus Spp., Nilaparvatalugens, Nephotetix, spp., Mythimna separate*).
- Discuss about major insect pests of Jowerand Maize (*Chilopartellus, Atherigonavarascoccate*).
- Elucidate the major insect pests of Sugarcane (*Tryporyza novella, Emmaloceradepressella, Pyrillaprepussila, Aleurolobusbarodensis*).
- Describe in detailmajor insect pests of Cotton (*Pectinophoragossypiella, Earias Spp., Syleptaderogala, Dysdercus Spp., Bomisiatabci, Amrascablouttula*).

- Explain insect pests of Oilseeds (*Lipaphiserysimi, AthaliaproximaBagradaCruciferarunDasyneuralini*).
- Discuss about major insect pests of Pulses (*HelicoverpaarmigeraAgrotis Spp., EtiellaZinckenella, Melanagromyza obtuse, Phytomyzeatriornis*).
- Elucidatemajor insect pests of Fruit crops (*DrosichaMangiferaeidioscopus Spp., PapilioDemeclius, DiaphorinacitriPhyllocnistiscitrelia, Otheris Spp. Virechoisisocrates. Eriosomalanigerum. Quadraspidiotuspermincousus*).
- Explain insect pests of Vegetable (*Leucinodesorbonalis, Epitachnaviontioclopunctate. Raphidoplapafoveicollis, DacusCucurbitae, PlutellaXylostella*).
- Describe the pests of Stored Grains (*Sitophilus oryzae, Trogoderma granarium, Tribullumcastaneum, sitotrogacerealella, callsobruchuschinensis*)
- Discuss about Polyphagus pests (*Odontotermesabesus, Schistocerca gregaria, Holotirichiaconsanquinceaspilosoma oblique, spodopteralitura, AmsectaSpp*).
- Explainelementary knowledge of apiculture and lac culture.

Course Outcomes of B.Sc. (Ag) Vsem. (Entomology)

Course outcomes of Crop pests and Integrated Pest Management (Paper Code: D-594)

- Discuss about basic principles of pest out- breaks and their economic status.
- Describe in details the cultural, physical,mechanical, legal.biologicaland hemicalmethods of insect control.
- Explain theuse of insecticides repellents,antifieedants,attractants,chemosterilants,pheromones and insect growth regulators.
- Elucidate basic concept of integrated pest management.
- Describe theelementary knowledge of plant protection equipments.
- Discuss aboutPlant protection organization at the state and national level.
- Explaingeneral account of non-insect pests with particular reference to rodents,naeatodes,mites and mollusks.
- Elucidate insect vectors transmitting plant diseases.

B.Sc. (Ag) VIII sem. (Entomology)

Paper: Agriculture Entomology(RAWE) (Paper Code: D-891 (k))

Rural agricultural work experience (RAWE) is a practical training programme.(Where students associated to farmers, Agro- industrial units and agricultural research station for a period of 3-4 months).

Prepared by Dr Mange Ram

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