

KERALA AGRICULTURAL UNIVERSITY

B. Sc. (Hons.) Ag 2017 Admission II Semester Final Examination-July-2018

Ento.1201 Fundamentals of Entomology (2+1) Marks: 50 Time: 2 hours I **Define the Following** (10x1=10)Paedogenesis 1 2 Moulting 3 Filter chamber 4 . Metamorphosis 5 Cryptonephric condition Phylogeny 6 7 Insect 8 Hemipneustic 9 Pygidium 10 Wing coupling II Write Short notes on ANY FIVE of the following (5x2=10)Write any eight ICZN rules or guidelines. 1 2 Write Taxonomic characters of order: Thysanoptera. List the process/steps involved in insect moulting. Mention order, family and two important taxonomic characters of the following a) Leaf hoppers b) Long horned grass hoppers Write in detail about principal excretory organs in insects. Write a short note on insects sound and light producing organs in insects. Write a short note on insect's endocrine system. Ш Answer ANY FIVE of the following (5x4=20)Draw the generalized insect antennae structure and Explain different types of insect antennae with examples 2 Explain the types of larvae and pupae of insects with examples. Draw a neat generalized structure of insect leg and list the different modifications of legs in insects with examples Draw a generalized insect wing structure and Explain different types insect wing modifications 5 Write at least Ten important factors responsible for insect dominance and abundance Differentiate between Exopterygota and Endopterygota Differentiate the following suborders with three characters each. Adephaga X ployphaga b) Rhophalocera X Heterocera Write an essay on ANY ONE of the following IV Draw a neat labeled diagram of mandibulate or biting and chewing type mouth parts and 1 mention different types of insect mouth parts with examples. Draw a neat labeled diagram of insect integument and explain cuticular appendages 2
