

## KERALA AGRICULTURAL UNIVERSITY B.Sc (Hons.) Agriculture 2016 Admission II Semester Final Examination-August-2017

## Fundamentals of Entomology (2+1)

Male Mosquito

Hymenoptera

Mantidae

Marks: 50 Time: 2 hours

Fill up the blanks

- 1 ----- is the hormone responsible for moulting.
- 2 Stridulatory organs are found in the order ------
- 3 Prognathous head is seen in -----
  - State True/False
- 4 Whitefly is a true fly
- 5 Antlion is an adult insect form
- 6 Lac a glandular secretion of female lac insect act as a protective covering Match the following

а

b

С

- 7 Raptorial forelegs
- 8 Johnston's organ
- 9 Parasitoid

## Define

10 Ecdysis

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I

Π

## Write short notes on any FIVE

- 1 Give a list of parasitoids in the order hymenoptera.
- 2 Parthenogenesis
- 3 Differentiate Oviparous and viviparous insects.
- 4 Key characters of Formicidae.
- 5 Hind leg modification in honeybee.
- 6 Draw a diagram of male reproductive system in insects with labeling.
- 7 International Code of Zoogical Nomenclature.

III Answer any FIVE

- 1 Describe the insect integument.
- 2 Endocrine glands in insects.
- 3 Define metamorphosis with reference to different types.
- 4 Describe the characteristic features of isoptera.
- 5 Describe the different types of insect antennae.
- 6 Describe respiration in aquatic insects.
- 7 Write about insect sense organs.

IV Write essay on any ONE

- Give an account of the different types of mouth parts of insects with appropriate diagrams.
- 2 Give an account of structure and function of the digestive system in insects.

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(10x1=10)

(5x2=10)

(5x4=20)

 $(1 \times 10 = 10)$