



Registration No:
Total Number of Pages : 2 AR-2018 B.Sc (Ag)
2nd SEMESTER REGULAR EXAMINATIONS, SEPT/OCT 2019-20
ENT-121

FUNDAMENTALS OF ENTOMOLOGY

Time : 2 Hours

Maximum : 50 Marks

(Answer **all** questions of Section – A)

SECTION – A

Q.1 Fill up the Blanks with suitable and meaningful word(s): **[10 × 0.5 = 5]**

- a The immature stage of hemi-metabolous insects is termed as ----- .
- b Honeybees have -----type of mouthparts.
- c The sulcus around the compound eye is ----- .
- d Plumose antenna is found in ----- .
- e Ladybird beetles belong to the family----- .
- f The aggregate of the animal species that grow spontaneously within a given region is called----- .
- g ----- sampling is employed for the insect pests whose initial appearance is localized.
- h The fungus,-----is known as white muscardine.
- i Chemicals that block cellular respiration in insects are called as ----- poison.
- j The insect used for killing congress grass is ----- .

Q.2. Define or Explain the following in one or two sentences

[5 × 1 = 5]

- a) Haltere
- b) Qualitative survey
- c) Hyper parasitoid
- d) Scavenging insects
- e) Biotic potential

Q.3. Match the following

[10 × 0.5 = 5]

Column – A

Column –B

- | | |
|--------------------------|--------------------------|
| (a) Synthetic pyrethroid | Microbial pesticide () |
| (b) Pollinators | Wind () |
| (c) Light trap | Behavioural control () |
| (d) NPV | Male cricket () |
| (e) External genitalia | Cypermethrin () |
| (f) Hibernation | Mechanical control () |
| (g) Anemotropism | Ovipositor () |
| (h) Fossorial leg | Protective mechanism () |
| (I) Reflex bleeding | Low temperature () |
| (j) Pheromone | Stingless bee () |



Q.4. Write **TRUE** or **FALSE** against the following statements.

[10 × 0.5 = 5]

- (a) Spiracles are present on tergum.
- (b) Peritrophic membrane is present in mid gut.
- (c) Juvenile hormone is secreted by corpora allata.
- (d) Elytra are seen in order hemiptera.
- (e) In parthenogenesis, females produce only females without mating.
- (f) Solitary bees are inferior pollinators than social bees.
- (g) In inoculative release large number of natural enemies are released at a time to control the pest immediately.
- (h) The ammensal is affected and the host remains unaffected in ammensalism
- (i) The shape of *Bt* endotoxin is spherical.
- (j) Cement layer is a part of endocuticle.

SECTION – B

(Attempt any **five** questions. Each question carries equal marks)

[5 × 6 = 5]

- Q.5 Describe the characteristics of order Lepidoptera. Name four families of this order having agricultural importance.
- Q.6 Describe with diagram the generalized female reproductive system of insects.
- Q.7 Name different components of environment. Briefly describe the intraspecific relationships found insects.
- Q.8 Classify insecticides based on mode of entry and chemical nature. Briefly describe the mode of action of organophosphates.
- Q.9 What are the different techniques in biological control? Describe conservation.
- Q.10 Name the components of IPM. Briefly discuss the cultural methods.

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