

M.Sc.- II (Zoology) CBCS Pattern Semester-IV
PSCZOOT14.1 - Special Group : Entomology-III
(Sense Organs, Social Life and Agriculture Pests)

P. Pages : 1

Time : Three Hours



GUG/W/23/11429

Max. Marks : 80

- Notes :
1. All questions are compulsory.
 2. All questions carry equal marks.
 3. Draw well labelled diagram if necessary.

1. Write an essay on compound eye-structure and function. 16

OR

a) Write an essay on sound producing organs: Structure and physiology. 8

b) Write an essay on Light producing organs: Structure and bioluminescent mechanism. 8

2. Write an essay on Mechanoreceptors: Sensory hairs, campaniform sensilla and chordotonal organs. 16

OR

a) Write an essay on Tympanal organs, Johanson's organ. 8

b) Write an essay on Immunity in insect: Innate immunity and molecular mechanism. 8

3. Write an essay on social life: Polymorphism, nest building and social behavior in Isoptera. 16

OR

a) Write an essay on social life: Polymorphism, nest building and social behavior in ants. 8

b) Write an essay on Locust migration and swarming. 8

4. Write an essay on Pest of Mango-classification, life history, damage and control. 16

OR

a) Write an essay on Pest of Cotton classification, life history, damage and control. 8

b) Write an essay on Pest of Cabbage classification, life history, damage and control. 8

5. Attempt the followings. 16

- a) Ocelli structure and functions.
- b) Mimicry and camouflage.
- c) Parasitic Hymenoptera-types and significance.
- d) Stored grain pests.
