

M.Sc. (Zoology) Fourth Semester Old  
**MSC15-1 - Special Group-Entomology III**  
**(Sense Organs, Social Life and Agriculture Pests Paper-III)**

P. Pages : 1

Time : Three Hours



**GUG/W/18/2435**

Max. Marks : 80

- 
- Notes :
1. All questions are compulsory.
  2. All questions carry equal marks.
  3. Illustrate your answer with well labelled diagrams wherever necessary.

1. Describe in detail structure and function of compound eye. 16

**OR**

Write notes on:

- a) Bioluminescence mechanism.
- b) Physiology of sound production.

2. Describe structure and functions of chemoreceptors. 16

**OR**

Write notes on:

- a) Mechanism of colour change.
- b) Sensory hairs.

3. Describe polymorphism and social life in Isoptera. Add notes on its nest building. 16

**OR**

Write notes on:

- a) Nest building in ants
- b) Locust migration

4. Enumerate the pests of cotton. Describe Life cycle, damage and control measures of any two of them. 16

**OR**

Write notes on:

- a) Pests of mango and their classification.
- b) Damage caused and control of flour beetle *Tribolium*.

5. Attempt the following. 16
- a) Ocelli.
  - b) Camouflage in insects.
  - c) Parasitic hymenoptera.
  - d) Pests of Citrus.

\*\*\*\*\*