

Roll No.

Total No. of Pages: 02

Total No. of Questions: 09

B.SC.(Agriculture) (2014 & Onwards) (Sem. – 3)
FUNDAMENTALS OF INSECT MORPHOLOGY & SYSTEMATICS

M Code: 72553

Subject Code: BSAG-303

Paper ID: [72553]

Time: 3 Hrs.

Max. Marks: 60

INSTRUCTIONS TO CANDIDATES:

1. **SECTION-A is COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. **SECTION-B** contains **FIVE** questions carrying **FIVE** marks each and students have to attempt any **FOUR** questions.
3. **SECTION-C** contains **THREE** questions carrying **TEN** marks each and students have to attempt any **TWO** questions.

SECTION A

1. Write short notes on:
 - a) Compound eyes in insects
 - b) Labrum of Akk grasshopper
 - c) Hyphopharynx
 - d) Pretarsus and Trochanter
 - e) Spermatheca
 - f) Malphigian tubules
 - g) Airsacs
 - h) White fly is a true fly? Comment.
 - i) Name of 2 Indian and 2 Foreign Books on Entomology.
 - j) What is full form of ICAR and IARI?

SECTION B

2. What is alimentary canal and briefly discuss its various parts?
3. What is the difference between a nymph and a larvae?
4. Distinguish characteristics of order Hemiptera.
5. What is wing venation and wing coupling mechanism?
6. Give up brief account of central nervous system of insect.

SECTION C

7. Discuss with help of diagram various appendages of head of Akk grasshopper.
8. Why are insects most dominating species on earth? Discuss with examples.
9. Define insects integument and its function. How cuticle is formed? What are different proteins found in cuticle? What is chitin and its chemical composition?