

MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION

B.Sc. (Agri.)

Semester : III (New)	Term : I	Academic Year : 2010-11
Course No. : ENTO 231	Title : Insect Morphology and Systematics	
Credits : 3(2+1)		
Day & Date : Friday, 22.10.2010	Time : 9.00 to 12.00	Total Marks : 80

- Note :**
1. Solve ANY FIVE questions from SECTION "A".
 2. All questions from SECTION "B" are compulsory.
 3. All questions carry equal marks.
 4. Draw neat diagrams wherever necessary.

SECTION "A"

- Q.1 What is sclerotization? Explain the moulting process in insects. State the cuticular appendages and processes with examples.
- Q.2 Enlist different types of mouth parts in insects with examples. Describe piercing and sucking type of mouth parts.
- Q.3 State different types of sense organs and sound producing organs with their location and functions in insects.
- Q.4 State types of reproduction in insects. Describe female reproductive system.
- Q.5 Give the characters of Phylum Arthropoda and differentiate between Class Insecta and Class Arachnid.
- Q.6 What is binomial nomenclature? State its general rules for classification of insects.
- Q.7 State the characters of Order Coleoptera and Isoptera with one family and example.

SECTION "B"

- Q.8 Define the following terms.

- | | | | |
|-----------------|-----------|--------------|----------------------|
| 1) Tagmata | 2) Notum | 3) Spurs | 4) Speciation |
| 5) Endoskeleton | 6) Gena | 7) Fecundity | 8) Insect morphology |
| 9) Prognathous | 10) Ostia | | |

- Q.9 Answer in one sentence.

- 1) State the function of styli.
- 2) Which are the major parts of insect brain?
- 3) What is meant by polyembryony?
- 4) State the function of mushroom glands.
- 5) How many legs are present in Compodiform larvae?
- 6) State the class of mites.
- 7) What is meant by aestivation?
- 8) Secondly wingless refers to what?
- 9) In Raptorial type which pair of leg is modified?
- 10) What is meant by hypermetamorphosis?

(P.T.O.)

Q.10 Fill in the blanks.

- 1) IOBC is located at _____.
- 2) NABAI stands for _____.
- 3) Sanskrit dictionary 'Amarkosh' refers _____ words for insects in early history.
- 4) Indian Museum is located at _____.
- 5) TVR Ayyar wrote _____ book in Entomology.
- 6) _____ is the Phylum considered as ancestors of the insects.
- 7) NPPTI stands for _____.
- 8) Insect abundance depends on _____ and _____ Biotic factors.
- 9) _____ Part of the leg is modified for digging.
- 10) Tympanum is present on _____ in Lepidopterous moth.

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