

**D 52356**

(Pages : 2)

Name.....

Reg. No.....

**THIRD SEMESTER M.Sc. DEGREE EXAMINATION, DECEMBER 2018**

(CUCSS—PG)

Zoology

ZO3ET 09—ENTOMOLOGY—I MORPHOLOGY AND TAXONOMY

(2016 Syllabus Year)

Time : Three Hours

Maximum : 36 Weightage

**Part A**

I. Answer all *fourteen* questions. Each question carries 1 weightage :

- 1 Distinguish between holometaboly and hemimetaboly.
- 2 Name any *two* bioluminescent insects.
- 3 What are 'niads' ?
- 4 What is hypognathous head ? Give example.
- 5 Name any *two* species of parasitic hymenoptera used in biocontrol of insects.
- 6 What is cantharidin ?
- 7 Write notes on termite castes.
- 8 What are book lice ?
- 9 Write down diagnostic features of Collembola.
- 10 Comment on the adaptations of Phasmida.
- 11 Write notes on Elateridae.
- 12 What are antlions ?
- 13 Write notes on locomotion in Gerridae.
- 14 What are the special features of Saturnidae ?

(14 × 1 = 14 weightage)

**Part B**

II. Answer any *seven* questions. Each question carries 2 weightage :

- 15 Write an account on polymorphism in aphids.
- 16 Explain parental care in Dermaptera.

Turn over

- 17 Comment on the economic importance of Cerambycidae.
- 18 Describe the respiratory adaptations of aquatic insects.
- 19 Explain the biology of Odonata.
- 20 Comment on the medical significance of Culicidae.
- 21 Write a brief account on myiasis.
- 22 Describe the mouth parts of butterflies.
- 23 Explain the modifications of thoracic legs in insects.
- 24 Describe any two theories on head segmentation in insects.

(7 × 2 = 14 weightage)

### Part C

III. Answer any *two* questions. Each question carries 4 weightage :

- 25 Classify Orthoptera up to family giving diagnostic features of each family.
- 26 Give an account on social life in honey-bees.
- 27 Explain the different types of antenna in insects with their structure and functions.
- 28 Give an account on gall forming insects and their adaptations.

(2 × 4 = 8 weightage)