

C 80750

(Pages : 2)

Name.....

Reg. No.....

FOURTH SEMESTER M.Sc. DEGREE EXAMINATION, MARCH 2020

(CUCSS)

Zoology

ZO 4ET 11—ENTOMOLOGY—II : ANATOMY AND PHYSIOLOGY

Time : Three Hours

Maximum : 36 Weightage

Part A

I. Answer all *fourteen* questions :

- 1 What is bulk flow ?
- 2 What are accessory hearts ?
- 3 How is keratin digested in an insect ?
- 4 What is eclosion ?
- 5 What are hygroreceptors ?
- 6 What is polyphenism ?
- 7 What is apolysis ?
- 8 Comment on aerodynamics of insect wings.
- 9 What is plasmatocyte
- 10 Give examples for light production in insects.
- 11 Write notes on sex determination in *Drosophila*.
- 12 Name any *two* insect pheromones and their functions
- 13 Mention the extra embryonic membranes of an insect.
- 14 Comment on bursicon and its significance.

(14 × 1 = 14 weightage)

Part B

II. Answer any *seven* questions :

- 15 Describe the structure of female reproductive system of insects.
- 16 Write notes on neuromuscular junctions.

Turn over

- 17 Explain the process of moulting in insects
- 18 Write notes on respiratory pigments of insects.
- 19 Describe the structure of insect brain.
- 20 Comment on the mechanism of hormone action.
- 21 Explain reception and transmission of stimuli in insects.
- 22 Comment on ventilation in aquatic insects.
- 23 Explain differentiation of germ layers in insects.
- 24 Describe sound production in insects.

(7 × 2 = 14 weightage)

Part C

III. Answer any *two* questions :

- 25 Give an account on excretory system of insects and the physiology of excretion.
- 26 Discuss the nutritional requirements of insects.
- 27 Write an essay on histomorphology of endocrine glands in insects.
- 28 Give an account on locomotion in terrestrial and aquatic insects.

(2 × 4 = 8 weightage)