



Reg. No.: .....

Name: .....



**K19P 0126**

**IV Semester M.Sc. Degree (Reg./Suppl./Imp.) Examination, April 2019  
(2014 Admission Onwards)  
ZOOLOGY  
ZOO4E02 (B) : Insect Physiology**

Time : 3 Hours

Max. Marks : 60

I. Answer **any two** of the following :

- 1) Describe the general structure of digestive system and physiology of digestion in insects.
- 2) Give a detailed account on anatomy, histology and physiology of various sense organs in insects.
- 3) Describe tracheal system in insects and the mechanism of respiration.
- 4) Explain sex determination and parthenogenesis in insects in detail. **(2×12=24)**

II. Answer **any two** of the following :

- 5) Explain composition of haemolymph and its course of circulation.
- 6) Describe excitation and activation of muscle fibres in insects. Add a note on slow and fast axons.
- 7) Explain the various hormones, their functions and the mechanism of hormone action in insects.
- 8) Discuss post-embryonic development in insects. **(2×8=16)**

III. Answer **any four** of the following :

- 9) Write an account on pheromones and their functions.
- 10) Explain polyembryony and paedogenesis in insects.
- 11) Explain the anatomy of nervous system in insects.
- 12) Explain the excretory organs in insects and formation of excreta.
- 13) Give an account on the specialized digestion in insects.
- 14) Explain the nervous control of ventilation. **(4×5=20)**