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K20P 0138

Reg. No. : ......

IV Semester M.Sc. Degree (CBSS-Reg./Suppl./Imp.) Examination, April 2020 (2016 Admission Onwards)

ZOOLOGY

ZOO4E02(B): Insect Physiology

Time: 3 Hours

Max. Marks: 60

Answer any two of the following :

(2×12=24)

- 1) Explain the structure of alimentary canal in insects and its modification.
- 2) Write an essay on segmentation, appendage formation and organogenesis.
- Explain the physiology of mechanoreceptors, chemoreceptors and photo receptors.
- Explain in detail about the role of hormones in insects with emphasis to molting and metamorphosis.
- II. Answer any two of the following:

 $(2 \times 8 = 16)$ 

- 5) Briefly explain the basic components of integument in insects.
- 6) Discuss the control of ventilation in insects.
- 7) Explain the physiology of excretion in insects.
- 8) Discuss in detail the synaptic transmission of impulses in insects.
- III. Answer any four of the following:

 $(4 \times 5 = 20)$ 

- 9) Write a short note on plastron respiration.
- 10) What is the composition of haemolymph?
- 11) Discuss the role of fast and slow axons.
- 12) Write a note on diapause.
- 13) Discuss the role of corpora allata.
- 14) What is parthenogenesis?