

IV Semester B.Sc. Examination, April/May 2018 (CBCS) (2016 Batch) SERICULTURE

Paper - IV: Physiology of Mulberry and Silkworm

Time: 3 Hours

Max. Marks: 70

Note: 1) Answer all questions.

2) Draw diagram wherever necessary.

I. Answer the following:

 $(5 \times 1 = 5)$

- 1) What is root pressure?
- 2) Write the functions of Carotenoids.
- 3) What are phagostimulants?
- 4) What is synopsis?
- 5) Write the role of male accessory glands.
- II. Write short notes on any five of the following:

 $(5 \times 3 = 15)$

- 6) Ion exchange.
- 7) Stomata.
- 8) IAA.
- 9) Importance of soil on mulberry growth.
- 10) Artificial diet.
- 11) Corpus allatum.
- 12) Insect muscle.

III. Answer any four of the following:

 $(4 \times 5 = 20)$

- 13) Explain the role of external factors on water absorption in plants.
- 14) Write an account on bio fertilizers.
- 15) Explain C4 cycle.
- 16) Write an account of factors affecting respiration.
- 17) Give an account of chemoreceptor.
- 18) Describe the ultra structure of skeletal muscles.

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IV. Answer any three of the following:

 $(3 \times 10 = 30)$

- 19) List out the micro and macro nutrients with their physiological role.
- 20) Explain symbiotic nitrogen fixation in detail.
- 21) Write an account on non cyclic photophosphorylation.
- 22) Describe the structure and function of digestive system. Add a note on the process of digestion.
- 23) Write an account on insect integument.