

U.G. 1st Semester Examination - 2025**ZOOLOGY****[Skill Enhancement Course (SEC)]****Course Code : ZOOL-SEC-T-1****(Introduction to Sericulture)****[NEP-2020]**

Full Marks : 35

Time : 1½ Hours

*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.*

1. Answer any five of the following: 1×5=5
- a) What do you mean by bivoltine and multivoltine races of silkworm?
 - b) Name two exotic races of *Bombyx mori*.
 - c) What is moulting in silkworm?
 - d) Define sericin.
 - e) What is the role of mulberry leaves in silkworm nutrition?
 - f) What is cocoon harvesting?
 - g) Name two natural enemies of silkworm other than Uzi fly.
 - h) What is hybridization in silkworm breeding?

[Turn over]

2. Answer any two of the following: $5 \times 2 = 10$

- a) Mention the names and functions of any five silk worm rearing appliances.
- b) What should be the ideal temperature and humidity of a silkworm rearing house? Why is formalin used in silkworm rearing? What is bed spacing? $1+2+2$
- c) Why pruning and manuring is essential in mulberry cultivation? How do irrigation management and pest control improve mulberry leaf quality and overall cocoon production in sericulture? $3+2$
- d) Define denier in silk and explain its significance in silk grading. What is degumming of silk? What is cocoon shell ratio? $2+2+1$

3. Answer any two of the following: $10 \times 2 = 20$

- a) What are the major groups of diseases affecting silkworms? What types of pathogens cause Pebrine, Grasserie, Muscardine and Flacherie? How do these pathogens enter, spread and produce infection in the silkworm body? How does pathogenesis differ in protozoan, viral, fungal and bacterial diseases? $1+2+2+5$

- b) What are the ideal requirements of soil, climatic and water conditions for mulberry cultivation? State the different methods of mulberry propagation. How do seed, cutting and grafting methods influence plant growth and productivity? $3+2+5$

- c) Briefly explain Early age and Late age rearing of silkworm technology. Write down the role of Central Silk Board in supporting and guiding entrepreneurship programmes. $5+5$

- d) Classify silkworm based on their geographic distribution. Write a note on the Larval stage of *Bombyx mori*.