

20. (a) Explain the cocoon stifling methods and mention its needs.

Or

- (b) Describe the mechanical tests commonly used to measure the strength of silk filament.

PART C — (3 × 10 = 30)

Answer any THREE out of Five questions.

21. Discuss the role of sericulture in income generation and rural women empowerment.
22. Explain the indigenous, exotic and high yielding varieties of mulberry plants with examples.
23. Give a detailed account on moulting and voltinism with suitable examples.
24. Discuss the causative agents, symptoms and preventive methods for two protozoan and two viral diseases of silkworm.
25. Explain the reeling procedure and mention the sketches of reeling machines used in small scales and industries.

S.No. 7110

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(For candidates admitted from 2022–2023 onwards)

M.Sc. DEGREE EXAMINATION, NOVEMBER 2023.

Zoology (Elective)

SERICULTURE

Time : Three hours

Maximum : 75 marks

PART A — (20 marks)

Answer ALL questions.

- I. (A) Multiple choice questions : (5 × 1 = 5)
 1. In India, which region producing all four varieties of silk. Choose the correct answer.
 - (a) Southern
 - (b) Western
 - (c) North East
 - (d) Dakshina Kannada
 2. The common name of *Macconellicoccus hirsutus* is
 - (a) Stem bug
 - (b) Mealy bug
 - (c) Hairy bug
 - (d) Stem bug
 3. Identify the correct combination of systematics of *Bombyx mori*.
 - (a) Class: Insecta Order: Hemiptera Family: Bombycidae
 - (b) Class: Arthropoda Order: Lepidoptera Family: Bombycidae
 - (c) Class: Insecta Order: Lepidoptera Family: Bombycidae
 - (d) Class: Arthropoda Order: Diptera Family: Culicidae

4. Eri silkworm feeds mainly _____.
 (a) Mulberry (b) Castor
 (c) Arjun (d) Asan
5. Ideal humidity for cocoon storage is _____.
 (a) Below 70% (b) Above 70%
 (c) Above 80% (d) Above 90%

(B) Fill in the blanks : (5 × 1 = 5)

6. India occupies _____ position in world silk production.
7. In mulberry production with stem cutting, the stem cutting should be cut at an angle of _____ degree.
8. _____ region of silk gland has no secretory role and perform only transport of the silk.
9. Chandrika is a _____ shaped mountage.
10. Seriplane test is used to perform with _____ device.

II. Descriptive type questions: (5 × 2 = 10)
 Define / Explain the following questions.

11. CSRTI
12. Amrasca bisttula
13. Sericin
14. Uzifly
15. Raw silk categories

PART B — (5 × 5 = 25)

Answer ALL questions choosing either (a) or (b).

16. (a) List out the environmental factors that affects sericulture in India.

Or

- (b) Write the place of Tamilnadu in sericulture map and mention state government role in promotion of sericulture.

17. (a) Write the importance and maintenance of nursery during mulberry cultivation.

Or

- (b) Explain the causative agent, symptoms and preventive measures for powdery mildew disease.

18. (a) Write the short note on non-mulberry silk with suitable examples.

Or

- (b) Explain the detailed life cycle and associated biochemical changes of Bombyx mori.

19. (a) List out the essential rearing appliances and mention their usage.

Or

- (b) Give an account on flacherie disease of silkworm.