

**MIZORAM PUBLIC SERVICE COMMISSION**  
**LIMITED DEPARTMENTAL EXAMINATION FOR PROMOTION TO**  
**SERICULTURE EXTENSION OFFICER UNDER SERICULTURE DEPARTMENT,**  
**GOVERNMENT OF MIZORAM. SEPTEMBER-2024**

**PAPER - III**

Time Allowed : 3 hours

Full Marks : 100

Pass Marks : 40

*Marks for each question is indicated against it.*

*Attempt all questions.*

1. Fill in the blanks with the correct answer : (15×1=15)

- (a) The Protective outer cell of the silkworm egg is \_\_\_\_\_. (*Chorion/Chrysalis*)
- (b) \_\_\_\_\_ is placed below the legs of the rearing stand. (*Cardboard/ Ant well*)
- (c) The egg reaches pin head stage about \_\_\_\_\_ hours before hatching. (*24/48*)
- (d) Late age silkworms consume about \_\_\_\_\_ % of the total mulberry feed. (*64/94*)
- (e) Muscardine is a \_\_\_\_\_ disease. (*Fungal/Bacterial*)
- (f) Fresh mulberry leaf contains about \_\_\_\_\_ % moisture. (*70-80/80-90*)
- (g) Moultng duration is around \_\_\_\_\_ hrs. (*10-15/20-24*)
- (h) \_\_\_\_\_ is the best type of mountage. (*Rotary/Bomboo*)
- (i) Optimum humidity required during mounting is \_\_\_\_\_ % relative humidity. (*60-70/80-90*)
- (j) Tetra moulters are those which undergo \_\_\_\_\_ instar. (*4<sup>th</sup>/5<sup>th</sup>*)
- (k) In India propagation through \_\_\_\_\_ is the most common method. (*seedlings/cuttings*)
- (l) An atmospheric temperature ranging from \_\_\_\_\_ °C is found to be optimum for the good growth of mulberry plant. (*24-28/28-30*)
- (m) Mulberry can be grown in places with a rainfall of about \_\_\_\_\_ mm. (*600-2500/2000-3000*)
- (n) The primary food plant of Eri silkworm is \_\_\_\_\_. (*Terminalia/Ricinus communis*)
- (o) The scientific name of mulberry silkworm is \_\_\_\_\_. (*Antheraea assamensis/Bombyx mori*)

2. Match the column : (4×1=4)

- | <u>A</u>              | <u>B</u>              |
|-----------------------|-----------------------|
| (a) Disinfectant      | (i) Insecta           |
| (b) Silkworm          | (ii) Bamboo Chandrike |
| (c) Protozoan disease | (iii) Formalin        |
| (d) Mountage          | (iv) Pebrine          |

3. Answer the following questions in one word or one sentence : (15×1=15)

- (a) Name the different stage in the live Cycle of *Bombyx mori*.
- (b) Define Chawki rearing
- (c) Define the term moulting.
- (d) What is mountage?
- (e) How many bed cleaning should be done during 5<sup>th</sup> instar?
- (f) What is the ideal humidity required during 4<sup>th</sup> & 5<sup>th</sup> instar larva?
- (g) What is the proper mesh size for cleaning nets of 1<sup>st</sup> and 2<sup>nd</sup> instar worms?
- (h) What is the ideal temperature for incubation of silkworm eggs?
- (i) Name four types of silkworm.
- (j) What is the right time for doing black boxing of silkworm eggs?
- (k) Name three types of Indian Tasar.
- (l) Name the different types of grafting.
- (m) Name the different types of layering.
- (n) Name the different methods of irrigation.
- (o) Name the common organic manures used for mulberry.

4. Answer the following questions: (10×2=20)

- (a) What is young age silkworm rearing?
- (b) What is disinfection?
- (c) What are the by-products of silkworm rearing?
- (d) What are the qualities of mulberry leaf to be fed for young age silkworm?
- (e) Name the different types of rearing equipment.
- (f) When should black boxing be made?
- (g) What is the duration of light and darkness to be provided during incubation?
- (h) What are defective cocoons?
- (i) What is the differences between tri-moulters and tetra-moulters?
- (j) Write down the morphology of silkworm larva.

5. Differentiate the following : (4×2=8)

- |                                   |   |
|-----------------------------------|---|
| (a) Manure and fertilizer         | (b) Macro-nutrients and micro-nutrients |
| (c) Intercultivation and Mulching | (d) Layering and Grafting               |

6. Write short note on Land preparation. (5)

7. Describe the different methods of harvesting of mulberry leaves. (5)

8. What is irrigation? Describe the methods of irrigation. (1+5=6)

9. What is pruning? Describe the different types of pruning. (1+5=6)

10. Answer the following questions in details : (2×8=16)

- (a) Explain the different environmental conditions required during silkworm rearing.
- (b) Name the causative agent of Grasserie. Mention the disease symptoms and preventive measures of grasserie disease in silkworm.