

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

**PAPER - IV**

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 : (10×1=10)

- (a) Pebrine disease is caused by \_\_\_\_\_. (*Bombyx mori*/Nosema bombysis)
- (b) Silkworm lay \_\_\_\_\_ eggs. (*hibernating* /non-hibernating)
- (c) Flacherie is a \_\_\_\_\_ disease. (*Fungal*/Bacterial)
- (d) In hibernating eggs, the embryo develops only half way, undergoes a stage of dormancy called \_\_\_\_\_. (*diapause*/ non-diapause)
- (e) White muscardine disease is caused by \_\_\_\_\_. (*Streptococcus bombycis*/ *Beauveria bassiana*)
- (f) Usually moth emergence take place in the \_\_\_\_\_. (*evening*/morning)
- (g) In loose egg preparation \_\_\_\_\_ eggs are easily removed. (*unfertilized*/ fertilized)
- (h) Male moth can be stored for about \_\_\_\_\_ days in 5°C. (7/10)
- (i) Pebrine spores can be identified at a magnification of \_\_\_\_\_ times. (100/600)
- (j) Female cocoons can be preserved at 5°C for \_\_\_\_\_ days. (2-3/5-6).

2. Match the column : (5×1=5)

- | <u>A</u>            | <u>B</u>                         |
|---------------------|----------------------------------|
| (a) White root rot  | (i) <i>Cercospora moricola</i>   |
| (b) Leaf spot       | (ii) <i>Peridiospora mori</i>    |
| (c) Leaf rust       | (iii) <i>Rosellinia necatrix</i> |
| (d) Dwarf           | (iv) <i>Helicobasidium mompa</i> |
| (e) Violet root rot | (v) mycoplasma                   |

3. Answer the following questions : (7×1=7)

- (a) Name the instrument used for the detection of pebrine spores.
- (b) What is the optimum humidity for the preservation of seed cocoons?
- (c) Name the disinfectant used to remove gummy substance from silkworm eggs.
- (d) What is the instrument used for measuring specific gravity of Hydrochloric acid(HCL) solution?
- (e) What is the main aim of moth examination?
- (f) What is the optimum duration of coupling for male and female moth?
- (g) Name two disinfectant used for disinfecting loose eggs.

4. Answer the following : (3×2=6)
- (a) What are the uses of waste moth?
  - (b) Differentiate between male and female pupae.
  - (c) What is Oviposition?
5. Write down the symptoms of the following mulberry diseases : (4+4=8)
- (a) Leaf spot
  - (b) White root rot
6. Write down the control measures of the following mulberry diseases : (4+4=8)
- (a) Powdery Mildew
  - (b) Root rot
7. Write short notes on : (2×4=8)
- (a) Transportation of seed cocoons
  - (b) Loose egg preparation
8. Differentiate between : (3×4=12)
- (a) Reproductive seeds and Industrial seeds
  - (b) Hibernating and non hibernating eggs
  - (c) Loose eggs and sheet eggs
9. Write down the disease symptoms of the following : (3+3=6)
- (a) Muscardine
  - (b) Septicemia
10. Answer the following in details : (2×6=12)
- (a) Explain the methods of moth examination.
  - (b) Explain the different methods of incubation of silkworm eggs.
11. What is Pebrine disease? Name the causative agent and describe the disease symptoms and preventive measures. (1+1+3+4=9)
12. What is Graserrie? Name the causative agent and mention the disease symptoms and control measures. (1+1+3+4=9)

\* \* \* \* \*