

**MIZORAM PUBLIC SERVICE COMMISSION**  
**LIMITED DEPARTMENTAL EXAMINATIONS FOR PROMOTION TO**  
**SERICULTURE EXTENSION OFFICER (S.E.O)**  
**UNDER SERICULTURE DEPARTMENT, GOVERNMENT OF MIZORAM. OCTOBER -2021**

**PAPER - II**

Time Allowed : 3 hours

Full Marks : 100

*All questions carry equal mark of 1 each.*

*Attempt all questions.*

1. The most practical and easy method to control mulberry pests under field conditions is -  
(a) Physical Method (b) Chemical Method  
(c) Biological Method (d) Cultural Method
2. The most common species of Nematodes affecting mulberry is -  
(a) Meloidogyne incognita (b) Phyllactinea corylea  
(c) Fusarium solani (d) Pseudomonas mori
3. Silkworm crop losses due to diseases in India are about –  
(a) 5 – 10 % (b) 10 -15 %  
(c) 15 – 20 % (d) 20 -25 %
4. Female moths are bulky with heavy abdomen and having –  
(a) 4 pated ovipositor (b) 6 pated ovipositor  
(c) 2 pated ovipositor (d) 3 pated ovipositor
5. The amount of acid to be added in order to prepare 1 lt of 1.075 sp. gr. HCl from 1.18 sp.gr. HCl is–  
(a) 584 ml (b) 484 ml  
(c) 516 ml (d) 416 ml
6. Sex Limited bivoltine silkworm race developed by CSR & TI, Mysore is –  
(a) Nistari (b) D14b  
(c) MBD – IV (d) NB<sub>4</sub>D<sub>2</sub>
7. The standard size of Craft Paper used in loose egg production is –  
(a) 60 cm × 90 cm (b) 60 cm × 60 cm  
(c) 30 cm × 60 cm (d) 30 cm × 90 cm
8. The ideal coupling room humidity is –  
(a) 70% (b) 75%  
(c) 80% (d) 85%
9. Deficiency of Potassium is corrected by adding \_\_\_\_\_ in two splits.  
(a) 180 kg P<sub>2</sub>O<sub>5</sub>/ha/yr (b) 120 kg P<sub>2</sub>O<sub>5</sub>/ha/yr  
(c) 150 kg P<sub>2</sub>O<sub>5</sub>/ha/yr (d) 170 kg P<sub>2</sub>O<sub>5</sub>/ha/yr
10. Sex separation of silkworm is easier in –  
(a) Egg stage (b) Larval stage  
(c) Pupal stage (d) Moth stage

11. In Moth Examination, Pebrine spores appear as –
- (a) Oval shining bodies (b) Spherical bodies  
(c) Rectangular bodies (d) Rod-shaped bodies
12. Disinfection of eggs increases the adherence capacity of the eggs to –
- (a) Cellulose (b) Wooden Tray  
(c) Egg sheet (d) Paraffin Paper
13. Hygrometer is an instrument used to measure –
- (a) Temperature (b) Relative Humidity  
(c) Specific Gravity (d) Air Current
14. Choose the commonly used bed disinfectant in silkworm rearing to control diseases –
- (a) Bleaching Powder (b) Labex  
(c) Formalin (d) Methyl Bromide
15. Mealy Bugs are –
- (a) Borer pest (b) Leaf - rolling pest  
(c) Sap feeder pest (d) Leaf – eating pest
16. Mummification of muscardine infected larvae after death is due to deposition of -
- (a) Calcium Acetate (b) Calcium Oxalate  
(c) Calcium Carbonate (d) Calcium Chloride
17. For seed cocoon, \_\_\_\_\_ cocoons should be sorted out at the cocoon market.
- (a) Melted (b) Flimsy  
(c) Deformed (d) Uzi infected
18. Male moths can be stored in refrigerator for –
- (a) 2 – 3 days (b) 3 – 4 days  
(c) 4 – 5 days (d) 5 -6 days
19. White muscardine is caused by –
- (a) *Bacillus thuringiensis* (b) *Beauveria bassiana*  
(c) *Nosema bombycis* (d) *Borrelina virus*
20. The optimum temperature for egg laying is –
- (a) 24 – 26 °C (b) 26 – 28 °C  
(c) 28 – 30 °C (d) 30 – 32 °C
21. The increase in characteristics such as size, growth rate, fertility and yield of a hybrid organism over those of its parents is termed as –
- (a) Voltinism (b) Heterosis  
(c) Moulting (d) Origin
22. *Aspergillus flavus* is causal organism of –
- (a) Green muscardine (b) White muscardine  
(c) Brown muscardine (d) Black muscardine
23. Disease-free layings (Dfls) are produced on mass scale in –
- (a) Grainage (b) P<sub>1</sub> Station  
(c) P<sub>2</sub> Station (d) P<sub>3</sub> Station

24. Which one of the following is macronutrient?  
(a) Chlorine (b) Iron  
(c) Nitrogen (d) Zinc
25. Specific gravity of salt solution is measured by –  
(a) Hydrometer (b) Hygrometer  
(c) Thermometer (d) Microscope
26. The protein content of Powdery Mildew diseased leaf is reduced by about -  
(a) 10 % (b) 20 %  
(c) 30 % (d) 40 %
27. Eggs are deposited softly on the egg sheets by pads of –  
(a) Ovariole (b) Seminal Duct  
(c) Ostium Bursae (d) Ovipositor
28. In \_\_\_\_\_ disease, the body of dead larva turns black and the internal organs are lignified emitting foul smell.  
(a) Septicemia (b) Sotto  
(c) Gattine (d) Pebrine
29. Egg sheets are surface sterilised with –  
(a) 2% Formalin (b) 2% Slaked Lime  
(c) 2% Bleaching Powder (d) 2% Sulphuric Acid
30. Bihar Hairy Catterpillar can be controlled by spraying –  
(a) 0.5% Bleaching Powder (b) 0.2% DDVP  
(c) 0.5% DDVP (d) 0.2% Dithane M-45
31. Powdery Mildew disease of mulberry is –  
(a) Bacterial Disease (b) Viral Disease  
(c) Fungal Disease (d) Nematode Disease
32. Transovarial transmission of silkworm disease occurs in –  
(a) Flacherie (b) Green muscardine  
(c) Septicemia (d) Pebrine
33. Safe period of using 0.25% Dithane M – 45 for Fusarium Leaf Spot is –  
(a) 1 – 4 days (b) 3 – 6 days  
(c) 2 - 5 days (d) 7 – 10 days
34. Infectious diseases of mulberry are caused by –  
(a) Animals (b) Pathogens  
(c) Mineral Deficiency (d) Environmental Factor
35. Coupling of silkworm moths should be done at semi-dark room with temperature of –  
(a) 23 – 25 ° C (b) 25 - 27 ° C  
(c) 27 – 29 ° C (d) 29 – 31 ° C
36. Release of *Micraspis discolor* is biological control employed to reduce –  
(a) Jassids (b) Thrips  
(c) Termites (d) Snails

37. Wilting of tender leaves and reduction of leaf turgidity is a sign of deficiency in –  
(a) Sulphur (b) Iron  
(c) Manganese (d) Copper
38. A kilogram of bivoltine cocoons yields about \_\_\_\_\_ gms of silkworm eggs.  
(a) 50 (b) 55  
(c) 60 (d) 65
39. In India, the concept of introducing hybrids for commercial use was first introduced in –  
(a) 1922 (b) 1968  
(c) 1947 (d) 1981
40. Which type of defective cocoon is unfit for seed preparation ?  
(a) Double Cocoon (b) Undersized Cocoon  
(c) Flimsy Cocoon (d) Oversized Cocoon
41. \_\_\_\_\_ Bleaching Powder is commonly used as disinfectant to exterminate pathogens in silkworm rearing.  
(a) 2% (b) 3%  
(c) 4% (d) 5%
42. A microscope used in Individual Moth Examination has magnification of –  
(a) 500 X (b) 600 X  
(c) 300 X (d) 400 X
43. Female moths are usually allowed to lay eggs for –  
(a) 6 hours (b) 12 hours  
(c) 18 hours (d) 24 hours
44. Deficiency of Nitrogen can be managed by adding \_\_\_\_\_ kg N/ ha/yr in 4-5 split dose after 3-4 weeks of every harvest.  
(a) 336 (b) 366  
(c) 363 (d) 343
45. 90% of muscardine infection occurs by penetration through –  
(a) Cuticle (b) Mouth  
(c) Spiracles (d) Rectum
46. A hybrid of Pure Mysore X C.Nichi had plain larvae and spun –  
(a) Brick-red Cocoon (b) White Cocoon  
(c) Golden-yellow Cocoon (d) Greenish Cocoon
47. In Hot Acid Treatment, the acid should be heated at –  
(a) 42°C (b) 44 °C  
(c) 46 °C (d) 48 °C
48. TUKRA disease is caused by toxin released by –  
(a) *Spilosoma obliqua* (b) *Empoasca flavescens*  
(c) *Maconellicoccus hirsutus* (d) *Pseudodendrothrips mori*
49. The common disease of sprouted cuttings which later leads to death is -  
(a) Root rot disease (b) Leaf rust disease  
(c) Leaf spot disease (d) Wilt disease

50. Acid used in acid treatment of eggs is –  
(a) Hydrochloric Acid (b) Sulphuric Acid  
(c) Citric Acid (d) Nitric Acid
51. Oily specks on the silkworm body around the spiracles or legs or their bases is characteristics of-  
(a) Fungal disease (b) Bacterial disease  
(c) Viral disease (d) Protozoan disease
52. In multivoltines, a gram of egg contains about –  
(a) 1000 eggs (b) 2000 eggs  
(c) 3000 eggs (d) 4000 eggs
53. Male pupae carry “dot” mark on the ventral side of \_\_\_\_\_ abdominal segment –  
(a) 5<sup>th</sup> (b) 6<sup>th</sup>  
(c) 7<sup>th</sup> (d) 8<sup>th</sup>
54. Pick out micronutrient of mulberry plant.  
(a) Phosphorus (b) Copper  
(c) Potassium (d) Magnesium
55. Sprinkler irrigation is an example of –  
(a) Mechanical Pest Control (b) Chemical Pest Control  
(c) Biological Pest Control (d) Cultural Pest Control
56. Cercospora Leaf Spot is prevalent during –  
(a) January - June (b) March – September  
(c) June – December (d) September – March
57. Sotro disease is also termed as –  
(a) Septicemia (b) Gattine  
(c) Nuclear Polyhedrosis (d) Bacterial Toxicosis
58. Silkworm eggs are to be stored in refrigerator till taken to incubation at –  
(a) 2.5°C (b) 3.5°C  
(c) 4.5°C (d) 5.5°C
59. Pebrine disease is caused by –  
(a) Bacteria (b) Protozoa  
(c) Virus (d) Fungi
60. Maximum intensity of the Nematode on mulberry is during –  
(a) Summer (b) Rainy Season  
(c) Autumn (d) Winter
61. Mating duration of moth should not be less than 2 hrs or more than –  
(a) 9 hrs (b) 8 hrs  
(c) 7 hrs (d) 6 hrs
62. The bacterial diseases in silkworm are collectively called as –  
(a) Flacherie (b) Grasserie  
(c) Muscardine (d) Polyhedrosis
63. Forced Eclosion Test of seed cocoon helps in early emergence of moths by –  
(a) 1 – 2 days (b) 3 – 4 days  
(c) 4 – 5 days (d) 6 – 6 days

64. *Mycoplasma* is the causative agent of –  
(a) Black Leaf Spot disease (b) Fusarium Leaf Spot disease  
(c) Dwarf disease (d) Leaf Rust disease
65. Cessation of plant growth and interveinal chlorosis in older leaf is due to deficiency in –  
(a) Phosphorus (b) Magnesium  
(c) Zinc (d) Manganese
66. Leaf Roller are major pest of mulberry in –  
(a) South India (b) Mizoram  
(c) West Bengal (d) Jammu & Kashmir
67. Pebrine detection is usually done by examining egg, larva, pupa or moth crushed with few drops of –  
(a) 2%  $H_2SO_4$  (b) 2%  $HNO_3$   
(c) 2% KOH (d) 2%  $K_2CO_3$
68. Moths can be preserved alive for future use in –  
(a) Hot Air Oven (b) Incubator  
(c) Egg Cabinet (d) Refrigerator
69. To prevent disease outbreak, rearing appliances, rearing rooms and the surroundings must be disinfected with –  
(a) 2% Formalin (b) 3% Formalin  
(c) 4% Formalin (d) 5% Formalin
70. The affected larvae of Court disease changes to \_\_\_\_\_ after death.  
(a) Black (b) Green  
(c) Brown (d) Crimson red
71. Thick black coating developed on the upper surface of mulberry leaf is a feature of –  
(a) Sooty Mould (b) Tukra  
(c) Leaf Rust (d) Leaf Blight
72. Mass Moth Examination was first introduced in 1969 in –  
(a) India (b) China  
(c) Russia (d) Japan
73. The specific gravity of HCl used in cold acid treatment of eggs is –  
(a) 1.10 (b) 1.075  
(c) 1.20 (d) 1.045
74. Foundation Stock Seeds are produced in –  
(a)  $P_1$  Station (b)  $P_2$  Station  
(c)  $P_3$  Station (d)  $P_4$  Station
75. During oviposition, the egg descends down to the \_\_\_\_\_ region where it is coated with gummy substance.  
(a) Spermatheca (b) Accessory Gland  
(c) Silk gland (d) Oviduct
76. The percentage of Bleaching Powder used to remove the gum in egg preparation is –  
(a) 0.2% (b) 2%  
(c) 0.5% (d) 5%



90. Intra-veinal chlorosis followed by marginal necrosis and defoliation in the older leaves is deficiency symptom of –
- (a) Iron (b) Phosphorus  
(c) Potassium (d) Boron
91. Which examination is practiced in commercial grainages?
- (a) Individual Moth Examination (b) Sample Moth Examination  
(c) Mass Moth Examination (d) Dry Moth Examination
92. Fusarium Leaf Blight can be controlled with –
- (a) 0.1% Bavistin (b) 0.2% Dithane M – 45  
(c) 0.2% Carbendazim (d) 0.5% Dithane M - 45
93. \_\_\_\_\_ are designed to provide darkness and isolation to moths during pairing and oviposition–
- (a) Cellules (b) Sprayers  
(c) Refrigerator (d) Wooden Trays
94. The most dangerous leaf disease which affects mostly the mature leaves is –
- (a) Leaf Spot (b) Leaf Blight  
(c) Powdery Mildew (d) Leaf Rust
95. The specific gravity of salt solution used in egg preparation is –
- (a) 1.02 (b) 1.04  
(c) 1.06 (d) 1.08
96. Which one is not the characteristic of male moth?
- (a) Inactive (b) Active  
(c) Narrow abdomen (d) Smaller size
97. The 1<sup>st</sup> hybridisation of double crossing is done in –
- (a) P<sub>1</sub> Station (b) P<sub>2</sub> Station  
(c) P<sub>3</sub> Station (d) P<sub>4</sub> Station
98. The intermediate temperature for acid treatment of eggs after chilling should be at –
- (a) 5°C (b) 10°C  
(c) 15°C (d) 25°C
99. The most prevalent silkworm disease in India is –
- (a) White muscardine (b) Flacherie  
(c) Grasserie (d) Pebrine
100. The norm for pupation rate at the P<sub>1</sub> station should be –
- (a) 60% (b) 70%  
(c) 80% (d) 90%