

MIZORAM PUBLIC SERVICE COMMISSION

TECHNICAL COMPETITIVE EXAMINATIONS FOR RECRUITMENT TO THE POST OF SERICULTURE EXTENSION OFFICER UNDER SERICULTURE DEPARTMENT GOVERNMENT OF MIZORAM, AUGUST, 2022

TECHNICAL PAPER - II

Time Allowed : 2 hours

Full Marks : 150

All questions carry equal mark of 2 each.

Attempt all questions.

1. Silk is
 - (a) Natural polymers – rayon
 - (b) Animal products – wool
 - (c) Animal products – fibrous protein
 - (d) Synthetic fibres – acrylics
2. Among the following Silk, which one is not Vanya Silk?
 - (a) Muga
 - (b) Oak tasar
 - (c) Mulberry
 - (d) Eri
3. Producer of the four commercial Silk is
 - (a) South Korea
 - (b) China
 - (c) India
 - (d) Japan
4. Among Indian States. Which one is producing all the four Silk?
 - (a) Karnataka
 - (b) Jammu & Kashmir
 - (c) Mizoram
 - (d) West Bengal
5. Top three raw Silk producers in the World are
 - (a) China, South Korea, Thailand
 - (b) Japan, Brazil, Iran
 - (c) India, Japan, North Korea
 - (d) China, India, Uzbekistan
6. In India, the top three raw Silk producers are
 - (a) West Bengal, Jharkhand, Mizoram
 - (b) Karnataka, Andha Pradesh, Assam
 - (c) Karnataka, Tamil Nadu, Assam
 - (d) West Bengal, Assam, Tamil Nadu
7. Among the Silk, Mulberry alone contributes approximately
 - (a) 75 %
 - (b) 85 %
 - (c) 90 %
 - (d) 95 %
8. Shorea robusta is the food plant of
 - (a) Eri Silkworm
 - (b) Tropical tasar Silkworm
 - (c) Temperate tasar Silkworm
 - (d) Muga Silkworm
9. Antheraea roylei is the Scientific name of
 - (a) Oak tasar Silkworm
 - (b) Muga Silkworm
 - (c) Temperate tasar Silkworm
 - (d) Eri Silkworm
10. What is the year when the raw Silk was exported from India to Rome during the reign of Kanishka probably through the Silk road?
 - (a) 38 B.C.
 - (b) 58 B.C.
 - (c) 80 B.C.
 - (d) 90 B.C.

11. Which State in India created the first separate Department in 1911?
 - (a) Madras
 - (b) West Bengal
 - (c) Karnataka
 - (d) Andhra Pradesh
12. In which year did Central Silk Board (CSB) was established in the constituent Assembly of India?
 - (a) 1926
 - (b) 1947
 - (c) 1950
 - (d) 1951
13. What is the first Sericultural Research station in India?
 - (a) Regional Sericulture Research Station, Bangalore
 - (b) International Centre for Training & Research in Tropical Sericulture, Mysore
 - (c) Central Sericultural Research & Training Institute, Mysore
 - (d) Central Tasar Research & Training Institute, Ranchi.
14. Bombyx mori is
 - (a) Eri silkworm
 - (b) Oak tasar silkworm
 - (c) Muga silkworm
 - (d) Mulberry silkworm
15. The morphological character, the colour of Bombyx mori cocoon of Chinese race is
 - (a) Slate
 - (b) Green
 - (c) Pale yellow
 - (d) Purplish yellow
16. The only indigenous Mulberry Univoltine race of India is
 - (a) C. Nichi
 - (b) Chotopulu
 - (c) Nistari
 - (d) Borapalu
17. In one gram of Bombyx mori egg, the total number of eggs are
 - (a) 1,000
 - (b) 1,500
 - (c) 2,000
 - (d) 2,500
18. The length of the newly hatched larva is about
 - (a) 1 mm
 - (b) 2 mm
 - (c) 3 mm
 - (d) 4 mm
19. The Mulberry silkworm (male larva) has a single median opening at the junction of the 8th & 9th segments called the opening of
 - (a) Seminal duct
 - (b) Bursa copulatrix
 - (c) Ishiwata's
 - (d) Herold's gland
20. The content of formaldehyde in a commercial formalin is
 - (a) 25-30 %
 - (b) 35-40 %
 - (c) 40-45 %
 - (d) 50-60 %
21. What is the percentage of formalin used to disinfect the rearing room and appliances after pebrine infection prior to the beginning of the next rearing?
 - (a) 2 %
 - (b) 3 %
 - (c) 5 %
 - (d) 7 %
22. What is the best time for brushing newly hatched larvae?
 - (a) 6 AM
 - (b) 8 AM
 - (c) 10 AM
 - (d) 11 AM
23. The optimum humidity of Mulberry silkworm rearing IV instar is
 - (a) 85 % R.H.
 - (b) 80 % R.H.
 - (c) 75 % R.H.
 - (d) 70 % R.H.

24. The number of feedings per day in Mulberry shoot and floor rearing is usually
(a) 5 (b) 4
(c) 3 (d) 2
25. The weight of a fully mature larva of Muga is
(a) 5-10 gm (b) 10-15 gm
(c) 15-20 gm (d) 20-25 gm
26. The equipment used for transferring Muga silkworm is
(a) Khorika (b) Racks
(c) Chaloni (d) Jalis
27. The life cycle of Muga silkworm in winter can prolonged to
(a) 80 days (b) 100 days
(c) 120 days (d) 140 days
28. In Muga silkworm rearing, for commercial production brushing of larvae is continued till the
(a) 2nd day (b) 3rd day
(c) 4th day (d) 5th day
29. The most common enemies of Muga silkworm is
(a) Carpenter ant (b) Uzifly
(c) Fire ant (d) Spider
30. In Muga silkworm rearing maximum ripening of larvae is during
(a) Morning (b) Day time
(c) Evening (d) Early night hours
31. In Mulberry silkworm rearing, the ideal size of chopped leaves during 2nd instar is
(a) 1-2 cm (b) 2-4 cm
(c) 3-4 cm (d) 4-5 cm
32. During silkworm rearing the litter is removed periodically, the process of removal is called
(a) Spacing (b) Mounting
(c) Dusting (d) Bed cleaning
33. How many times did the silkworm increase in weight from hatching to the end of the V instar?
(a) 4,000 - 5,000 (b) 5,000 - 6,000
(c) 6,000 - 7,000 (d) 7,000 -10,000
34. In silkworm rearing of Mulberry the spacing given in the beginning of V instar (in mm) is
(a) 6 (b) 7
(c) 8 (d) 9
35. In tropical areas the ideal harvesting time is
(a) 3rd day of spinning (b) 4th day of spinning
(c) 5th day of spinning (d) 7th day of spinning
36. In Chawki rearing the optimum temperature maintained is
(a) 24°C (b) 25°C
(c) 26°C (d) 27°C

37. In silkworm rearing the time for removing paraffin cover on the top prior to each feeding for ventilation is
(a) 10 mins (b) 15 mins
(c) 30 mins (d) 1 hour
38. What is the use of feather in silkworm rearing?
(a) For cleaning (b) For brushing hatched worms
(c) For dusting bed disinfectants (d) For mounting, etc.
39. For rearing of tasar silkworm, the ideal height of food plants is
(a) 2 - 3 metres (b) 3.0 - 3.5 metres
(c) 3.5 - 4.0 metres (d) 4 - 5 metres
40. At which temperature when tasar silkworm is in-active under low temperature?
(a) 10°C (b) 15°C
(c) 20°C (d) 25°C
41. The leaves consumed during V instar by the silkworm is approximately
(a) 50 % (b) 60 %
(c) 70 % (d) 80 %
42. The spinning continues after completely enveloped by the cocoon for another
(a) 1 - 2 days (b) 2 - 3 days
(c) 3 - 4 days (d) 4 - 5 days
43. The weight of tasar silkworm egg is approximately
(a) 3 mg (b) 5 mg
(c) 10 mg (d) 20 mg
44. The weight of a mature single tasar silkworm larva is approximately
(a) 20 gm (b) 30 gm
(c) 50 gm (d) 80 gm
45. Among the food plants mentioned below, what is not the food plant of polyphagous Eri silkworm?
(a) *Plumeria acutifolia* (b) *Manihot utilissima*
(c) *Terminalia tomentosa* (d) *Ricinus communis*
46. The wild Eri silkworm is
(a) *Samia cynthia* (b) *Antheraea mylitta*
(c) *Antheraea assamensis* (d) *Philosamia ricini*
47. The first record of Pebrine occurrence comes from France in
(a) 1840 (b) 1845
(c) 1850 (d) 1855
48. Pebrine spores are easily recognised in a microscope under a magnification of
(a) 300x400 (b) 400x500
(c) 500x600 (d) 600x700
49. Pick the one which is not a symptom of Flacherie
(a) Loss of appetite (b) Vomiting
(c) Sluggishness (d) Slow growth
50. The disease often called as 'Jaundice' is
(a) Grasserie (b) Sotto disease
(c) Flacherie (d) Septicaemia

51. What is the disease with a symptom appears yellowish or white fluid escapes from ruptured places
- (a) Flacherie (b) Grasserie
(c) Muscardine (d) Sotto disease
52. Muscardine disease is caused by
- (a) Microsporidiosis (b) Virus
(c) Bacteria (d) Fungi
53. The most destructive pests of silkworm is
- (a) Dermestid beetles (b) Uzi flies
(c) Ants (d) Wasps
54. The predator which eat the silkworms as such and also the pupae after biting open the cocoons is
- (a) Lizards (b) Dermestid beetles
(c) Birds (d) Rats
55. During disinfection of Rearing house the room temperature should be maintained preferably at
- (a) 20°C (b) 23°C
(c) 25°C (d) 30°C
56. The most appropriate method of brushing for loose eggs is
- (a) Husk method (b) Cloth/paper method
(c) Feather method (d) Net and feeding
57. The size of the chopped leaves for the 2nd instar Mulberry silkworm is
- (a) 1.0 - 1.5 cm (b) 1.5 - 2.0 cm
(c) 2.0 - 4.0 cm (d) 4.0 - 6.0 cm
58. How many times we should do bed cleaning in Mulberry silkworm rearing at 3rd instar?
- (a) Once (b) Twice
(c) Thrice (d) Once every day
59. How many times did the silkworm increased in size?
- (a) 3,000 (b) 5,000
(c) 7,000 (d) 9,000
60. In silkworm rearing paraffin paper is used for
- (a) Bed cleaning (b) Moulting
(c) Maintaining temperature (d) Maintaining humidity
61. In humid conditions, paraffin paper method of rearing can causes
- (a) Pebrine (b) Muscardine
(c) Sotto disease (d) Septicaemia
62. Choose the method which is not appropriate for late age silkworm rearing
- (a) Chawki rearing (b) Shelf rearing
(c) Floor rearing (d) Shoot rearing
63. Mention the most economical method of silkworm rearing in respect to labour requirements, bed cleaning, etc.
- (a) Box rearing (b) Floor rearing
(c) Shelf rearing (d) Shoot rearing

64. Ideal relative humidity during spinning of cocoons is
(a) 40 - 50 % (b) 50 - 60 %
(c) 60 - 70 % (d) 70 - 80 %
65. In one hectare of land with a spacing of 5 m x 5 m between trees and rows, som/soalu trees can accommodate
(a) 300 (b) 400
(c) 500 (d) 600
66. Germ plasm bank in Mulberry breeding refers to
(a) Cross pollination method (b) Selection of parents
(c) Collection of genotypes (d) Studies on floral characters, anthesis, etc.
67. Select the beneficial mutants produced through chemical mutagenesis by CSR & TI, Mysore
(a) S 54 (b) TR 10
(c) Kosen (d) BC 2 59
68. The cheapest and quickest method of crop improvement in Mulberry breeding programme is
(a) Selection (b) Hybridization
(c) Variation (d) Mutation breeding
69. The major elements which are essential for plant growth are
(a) Ca, Mg, S (b) Cu, Co, B & Cl
(c) N, P, K (d) Fe, Mn, Zn
70. Why should we do not disturbed the worms during spinning of cocoon?
(a) They wander and disturb others
(b) It causes suspension of spinning and breaking of the thread
(c) The spinning of cocoons delay
(d) The humidity can be raised
71. Spinning of cocoons completed during
(a) 24 hrs (b) 24 - 48 hrs
(c) 48 - 72 hrs (d) 72 - 96 hrs
72. In India, 'Rangi' is one of the silkworm diseases, the other name is
(a) Court disease (b) Septicaemia
(c) Bacterial flacherie (d) Sotto disease
73. The colour of the newly hatched silkworm larva is
(a) White (b) Red
(c) Black (d) Purple
74. Respiratory function of silkworm larva is carried out through
(a) Spiracles (b) Taenidium
(c) Rectum (d) Tracheal bush
75. The silkworm larval life is distinctly divided into
(a) Three stages (b) Four stages
(c) Five stages (d) Six stages