MIZORAM PUBLIC SERVICE COMMISSION

General Competitive Examinations for Recruitment to the post of Sericulture Extension Officer under Sericulture Department
September, 2018

PAPER - I

Time Allowed : 2 hours | Full Marks : 200

*All questions carry equal marks of **2** each.*
Attempt all questions.

1. Castor varieties ideal for North-East
(a) NBR, Kalpi-6 (b) DCH-177, NBG
(c) NBR, NBG (d) GCH, Kalpi-6

2. Recommended mulberry Pruning in Mizoram is
(a) Bottom pruning (b) Middle pruning
(c) Top pruning (d) Kolar system

3. Muga Silkworm is monopoly only to.
(a) Mizoram (b) Assam
(c) Nagaland (d) Manipur

4. During Pruning _____ paste may be applied to cut portions to prevent infections.
(a) Blitox (b) Rogor
(c) Dimathane M 45 (d) Lime

5. Manihot utilisima is the scientific name of.
(a) Tapioca (b) Tasar
(c) Muga (d) Mulberry

6. For middle pruning, Mulberry Plant should be cut at the height of
(a) 20 cm (b) 30 cm
(c) 90 cm (d) 180 cm

7. Synchronization of the right quality of leaf with the right stage of worms is the main objective of
(a) Incubation (b) Black Boxing
(c) Disinfection (d) Pruning

8. Continuous Practices of Bottom pruning mulberry affects
(a) Root growth (b) Internodal distance
(c) Photosynthesis (d) None of the above

9. The best season for planting Mulberry in Mizoram is
(a) January - February (b) May - June
(c) July - August (d) March - April

10. In Mizoram, Pruning is done
(a) Once in a month (b) Once in 2 years
(c) Twice in a month (d) Once in a year

11. Vermicompost is prepared by
(a) Compost (b) Azotobacter
(c) Earthworms (d) Nitrogen

12. Example for a phosphate Solubilizing microbial biofertilizer
(a) Seriphose (b) Seriboost
(c) Sampoorna (d) Ankush

13. Name any one straight fertilizer that may be applied to mulberry
(a) Potash (b) Single Superphosphate
(c) Urea (d) Ammonium Phosphates

14. If fertilizer recommendation is 300:120:120; calculate the amount of Urea required for 1 Ha mulberry garden
(a) 1500 Kg (b) 500 Kg
(c) 652 Kg (d) 360 Kg

15. Manure recommended for nematodes infected mulberry garden is
(a) Neem Oil cake (b) Poultry manure
(c) Cowdung (d) Castor Cake

16. Application of 3 - 4 Kg of biophos and azotobacter per acre of mulberry garden reduces the need for Phosphorus and Nitrogen fertilizer by
(a) 10 - 20 % (b) 20 - 30 %
(c) 30 - 40 % (d) 40 - 50 %

17. Technique used to reduce moisture loss is
(a) Drainage (b) Percolation
(c) Composting (d) Mulching

18. Indiscriminate use of chemical, imbalanced fertilizer usage and poor drainage induces
(a) Porous activity of soil (b) Problematic Soil
(c) Micronutrient availability of soil (d) Water holding capacity of soil

19. Application of fertilizer in split does minimizes
(a) Nutrient depletion (b) Soil fertilizer
(c) Root Development (d) Density of Viral particles

20. Organic manure improve
(a) Soil pH (b) Secondary infection
(c) Water holding capacity (d) Improper root development

21. Mulberry belongs to the family
(a) Malvaceae (b) Apcoynaceae
(c) Rubiaceae (d) Moraceae

22. Mulberry seed viability is acceptable for
(a) 2-3 months (b) 4-6 months
(c) 6-7 months (d) 3-4 months

23. Insertion of a part/branch of a plant into a rooted plant is called
(a) Air layering (b) Trench layering
(c) Cutting preparation (d) Grafting

24. Pollination in mulberry is
(a) Hydrophily (b) Anamophily
(c) Zoophily (d) Entomophily

25. Whole shoot harvest is practiced for feeding
(a) 1V & V stage larvae (b) Newly hatched larvae
(c) 111 stage larvae (d) Young age larvae

26. In what stage the larvae are fed with entire leaf
(a) First Stage (b) Second Stage
(c) Third Stage (d) Fourth and Fifth Stages

27. The movement of water from a region of higher concentration to a lower concentration through a selectively permeable membrane is called
(a) Diffusion (b) Osmosis
(c) Transpiration (d) None of these

28. Morin is present in
(a) Mulberry (b) Terminalia
(c) Castor (d) Papaya

29. Drought means
(a) Scarcity of water (b) Excess of water
(c) Irrigation to plant (d) Soil erosion

30. *Ricus communis* is the scientific name of
(a) Tapioca (b) Castor
(c) Papaya (d) Oak

31. The process of transferring ideas, skills or attitude from one person to another in satisfied manner is
(a) TOT (b) Communication
(c) Technology adoption (d) All of these

32. Share of cocoon producer in silk fabric
(a) 40-50% (b) 60-70%
(c) 50-60% (d) 50%

33. The benefit: cost ratio for cocoon production is
(a) 1.54:1 (b) 1.6:1
(c) 1.7:1 (d) 1.58:1

34. An acre of mulberry garden provided gainful employment for
(a) 3 people (b) 4 people
(c) 6 people (d) 5 people

35. Mulberry can be propagated both by
(a) Pruning and trimming (b) Cutting and saplings
(c) Moulting and Mounting (d) Polarding and top cliping

36. Rooted sapling are more preferred over
(a) Seed (b) Leaf
(c) Cutting (d) Budding

37. Suitable age of mulberry cutting for nursery preparation is
(a) 8-12 months (b) 12-14 months
(c) 14-16 months (d) 4-6 months

38. Selected Plot for nursery should be free from
(a) Water logging (b) Loamy soil
(c) Black soil (d) Sandy soil

39. Selected Mulberry cutting should have
(a) 1-2 active buds (b) 3-4 active buds
(c) 5-6 active buds (d) None of the above

40. Before Planting, Cutting should be treated for 15mins with
(a) 0.4% Bavistin (b) 0.1% Bavistin
(c) 2% Bavistin (d) 0.5% Bavistin

41. To avoid termite infestation, nursery bed should be treated with Rogor with the concentration of
(a) 0.1% (b) 1.0%
(c) 1.5% (d) 20%

42. Transport the cutting during cooler hours of the day to avoid
(a) Mixing (b) Desiccation
(c) Infection (d) Respiration

43. Portion of the shoot used for cutting is
(a) Apex (b) Bottom
(c) Middle (d) Root

44. No. of cuttings accommodated at nursery bed of 300cm x 120cm size with 15cm x10cm spacing is
(a) 340 (b) 240
(c) 140 (d) 440

45. Mulberry variety recommended for Mizoram State is
(a) S-13, Kanva - 2, V-I (b) S-36, MR2, AP12
(c) S-1635, BC2-59,Tr-10 (d) CSR2, J112, MC4

46. The most popular method for propagating muga food Plant is through
(a) Cutting (b) Seedling
(c) Layering (d) Sapling

47. Prior to sowing and to sort out unfertile one som seeds are dipped in
(a) Formalin (b) Bleaching solution
(c) Water (d) Chloroform

48. Recommended spacing of som seed in nursery bed is
(a) 10" (b) 8"
(c) 6" (d) 12"

49. Suitable site for nursery is characterised by
(a) Well drained plot (b) Alkaline soil
(c) Sloppy Plot (d) Water lodged

50. Successful germination of Oak seeds depends on
(a) Removal of tip of the shell and position of the seed sown
(b) Light and dark
(c) Shape and size of the seed
(d) Color and stiffness of the seed

51. Concentration of BHC used in som nursery is
(a) 20% (b) 15%
(c) 10% (d) 5%

52. Transplantation of Som is carried out when the seeding obtains the height of
(a) 40cm (b) 30cm
(c) 10cm (d) 60cm

53. Generally castor plant is propagated through direct sowing of seeds in the month of
(a) March - April (b) January - February
(c) November - December (d) July - August

54. Collection of Kesseru seeds is in the month of
(a) April - May (b) November - December
(c) February - March (d) June - July

55. Ideal pH of soil for Mulberry is in the range of
(a) 8.5 - 9.5 (b) 6.8 - 7.5
(c) 3.5 - 4.5 (d) 10.5 - 12.3

56. Acidic soil can be rectified by application of
(a) Bleaching (b) Gypsum
(c) Lime (d) RKO

57. For rainfed Mulberry cultivation, applications of FYM per Pit is at the rate of
(a) 5Kg (b) 1Kg
(c) 3Kg (d) 4Kg

58. Requirement of FYM/Ha/Yr in an irrigated Mulberry cultivation is
(a) 20TM (b) 40 MT
(c) 10MT (d) 35 MT

59. In rainfed Mulberry cultivation requirement of NPK/Ha/Yr in Kg is
(a) 100:50:50 (b) 250:100:100
(c) 300:150:150 (d) 350:100:100

60. Mulberry Production per unit area can be enhanced by
(a) Fernigation (b) Fertigation
(c) Fermentation (d) Fertilization

61. Intensive cultivation, mechanization and quality leaf Production is possible only under
(a) Conventional condition (b) Rainfed condition
(c) Irrigated condition (d) Traditional condition

62. Mulberry variety recommended for alkaline soil is
(a) AR_{12} (b) S_{13}
(c) V_1 (d) Tr_{10}

63. In an irrigated Mulberry cultivation practices, recommended dose of FYM per Hatare per year is
(a) 50 tons (b) 30 tons
(c) 20 tons (d) 40 tons

64. No. of Mulberry accommodated by Ha of land using a spacing of 90cm x 90cm is
(a) 12345 (b) 13245
(c) 14325 (d) 15432

65. With good management, Mulberry gives good leaf yield up to
(a) 5-10 yrs (b) 10-15yrs
(c) 15-20yrs (d) 20-30yrs

66. Apply fertilizers based on
(a) Fertility of soil (b) Texture of soil
(c) Topography (d) Soil testing

67. Type of Mulberry leaf harvest is closely related with types of
(a) Pruning (b) Rearing
(c) Variety of Plant (d) Fertilizer

68. After harvesting, the duration of Mulberry leaf preservation for feeding must be limited to
(a) 24hrs (b) 10hrs
(c) 13hrs (d) 12hrs

69. Ideal time for leaf harvesting is cooler hours of the day with an objective of conserving
(a) Chlorophyll (b) Viscosity
(c) Moisture (d) Sulphur

70. Ideal age of leaves harvesting for IV & V instar Mulberry Silkworm larvae is
(a) 20-30days (b) 50-60days
(c) 30-40days (d) 70-80days

71. Leaf maturity is assessed in two ways by
(a) Total no leaf in a shoot and internodal distance
(b) Leaf surface area and shape
(c) Colour and texture of the leaf
(d) Total growth period and position of leaf on the shoot

72. Nutritive value of Mulberry leaf decreases with
(a) Position of leaf as it goes down from top to bottom
(b) Position of leaf as it goes up from bottom to top
(c) Position of leaf as it exposed to the sun
(d) None of these

73. Method adopted for Plucking the correct leaves for Chawki worm is
(a) Largest glossy leaf method (b) Smallest glossy leaf method
(c) Basal leaf method (d) Apical leaf method

74. For Silkworm rearing, Practical limit of the withering of leaf is within
(a) 20% (b) 10%
(c) 30% (d) 40%

75. The consumption of leaf by the worms changes in accordance with
(a) Variety of leaf (b) Colour of leaf
(c) Size of the leaf (d) Moisture content of the leaf

76. Under tropical condition best time for leaf Plucking is
(a) Morning (b) Evening
(c) Night (d) Noon

77. While preserving Plucked leaves of large quantity periodic turning of leaves is suggested to avoid
(a) Admixture (b) Ant attack
(c) Fermentation (d) Chlorosis

78. Usage of Paraffin paper during young age silkworm rearing aims at

(a) Preservation of moisture (b) Preservation of silk gland

(c) Preservation of Co_2 (d) Preservation of O_2

79. The Cocoon produced by wild variety of Eri Silkworm is

(a) Red (b) White

(c) Yellow (d) Blue

80. As far as Oaks are concerned, the best time for pruning is

(a) August - September (b) June - July

(c) November - January (d) September - October

81. Any plant that is growing where it is not wanted is

(a) Shrub (b) Weed

(c) Tree (d) Bush

82. Importance of Potash as a fertilizer is to increase

(a) Branching system (b) Disease resistance

(c) Rooting system (d) Leaf area

83. In shoot rearing system, clipping the terminal buds just a week prior to shoot harvest is recommended for

(a) 1st and 2nd instar (b) 1st and 3rd instar

(c) 4th and 5th instar (d) 2nd and 4th instar

84. Secondary food plant of Muga silkworm

(a) *Morus alba* (b) *Ricinus communis*

(c) *Heteropanax fragrans* (d) *Litsea salicifolia*

85. For Chawki management, out of the total Muga food plant, _____ may be assigned for Chawki Plot

(a) 40% (b) 50%

(c) 20% (d) 30%

86. One hectare is considered as an economic unit for

(a) Silk weaving (b) Cocoon production

(c) By product generation (d) Reeling unit

87. To rear 1dfl of bivoltine hybrid, _____ kgs of leaves are required.

(a) 8-10 (b) 10-12

(c) 12-15 (d) 15-18

88. Drip irrigation is precise application of water to the

(a) Leaf zone (b) Root zone

(c) Stem zone (d) None of the above

89. Acceptable limits for water quality suspended particles(ppm) for drip irrigation is

(a) <50 (b) >50

(c) <40 (d) >40

90. Pecentage of ensured wetting of effective root system for drip irrigation is

(a) 90% (b) 70%

(c) 65% (d) 50%

91. Normal operating pressure for drip irrigation is

(a) 10-15m (b) 20-25m

(c) 25-30m (d) 30-35m

92. Man-days required during one year for cultivation and maintenance of 1 haet of mulberry garden under rainfed condition is estimated

(a) 350 (b) 450

(c) 550 A (d) 650

93. Manually one person can prepare 1500-2000 cutting in one day while mulberry cutting machine, designed and developed by CSR&TI, CSB Mysore can prepare _____ in 8 hours

(a) 12000-16000 cuttings (b) 22000-26000 cuttings

(c) 32000-36000 cuttings (d) 40000-50000 cuttings

94. Profitability from Sericulture largely depends on the production of mulberry leaf and its conversion to

(a) Pupa (b) Yarn

(c) Cocoon (d) Sericin

95. Harvested leaf is covered with wet gunny cloth in summer to check

(a) Fermentation (b) Driage

(c) Temperature (d) Humidity

96. Sericulture is a labour intensive agro-industry ideally suited to solve problem of

(a) Literacy (b) Human health

(c) Education (d) Unemployment

97. Manipulation of nutritional and ecological conditions to obtain maximum growth and care to raise robust and healthy batch of young silkworms is obtained in a place called

(a) Grainage (b) Chawki centre

(c) Mounting Hall (d) P-1 station

98. Floor area required to rear 100dfls of Multivoltine X Bivoltine hybrid is

(a) 150 sqft (b) 200 sqft

(c) 300 sqft (d) 360 sqft

99. After one month of germination, apply NPK @ _____ kg/ha to Castor plants

(a) 125:75:25 (b) 60:40:20

(c) 300:120:120 (d) 100:50:50

100. Methodical removal of branches in mulberry to provide sturdy frame and to give a continuous spurt to the plant to produce new foliage resulting in improving the leaf yield is called.

(a) Mulching. (b) Polarding

(c) Pruning (d) Trimming

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