MIZORAM PUBLIC SERVICE COMMISSION

TECHNICAL COMPETITIVE EXAMINATIONS FOR RECRUITMENT TO THE POST OF
GRADE-V OF MIZORAM HORTICULTURE SERVICE
UNDER HORTICULTURE DEPARTMENT, GOVERNMENT OF MIZORAM
NOVEMBER, 2017

TECHNICAL PAPER - I

Time Allowed : 2 hours
Full Marks : 200

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

1. The contribution of Indian mango in world production is about
   (a) 15%  (b) 25%
   (c) 54%  (d) 72%

2. Which plant is commercially propagated with zygotic seed?
   (a) Papaya  (b) Banana
   (c) Jackfruit  (d) Walnut

3. Air layering is generally followed in
   (a) Pineapple  (b) Papaya
   (c) Pomegranate  (d) All of these

4. Which of the following is the natural Auxin?
   (a) Dicamba  (b) 2,4-D
   (c) Picloram  (d) Phenyl acetic acid

5. Auxin Transport in plants occur through
   (a) Xylem  (b) Phloem
   (c) Parenchyma cells  (d) Both Xylem and Phloem

6. Chemically Gibberllins are
   (a) Monoterpenoids  (b) Triterpenoids
   (c) Diterpeneoids  (d) All of these

7. Which of the following can be substitute red light effect in plants?
   (a) Auxins  (b) Gibberllins
   (c) Methylene  (d) Ethylene

8. Which of the following is climacteric fruit?
   (a) Olive  (b) Peach
   (c) Mango  (d) All of these

9. Morphactins are
   (a) Sex regulators  (b) Vegetative growth retardant
   (c) Both (a) & (b)  (d) None of these
10. Which of the following is a false fruit?
   (a) Guava
   (b) Watermelon
   (c) Tomato
   (d) Apple

11. Exanthema is a nutritional disorder in
   (a) Citrus
   (b) Banana
   (c) Mango
   (d) Apple

12. Which mango cultivar is resistant to malformation?
   (a) Alib
   (b) Bhadauram
   (c) Illaichi
   (d) All of these

13. Perlin beauty is a promising cultivar of
   (a) Grapes
   (b) Pineapple
   (c) Apple
   (d) Pomegranate

14. Lichi has high content of
   (a) Zinc
   (b) Copper
   (c) Iron
   (d) Calcium

15. The inflorescence in mango contains
   (a) Male flower
   (b) Andromonoecious flowers
   (c) Hermaphrodite flowers
   (d) All of these

16. What induce flowering in long day plants under short day condition
   (a) Ethylene
   (b) Auxins
   (c) Gibberllins
   (d) Cytokinin

17. Dwarf Cavendish is a cultivar of
   (a) Apple
   (b) Strawberry
   (c) Banana
   (d) Pineapple

18. In South India grapes are pruned
   (a) Once in a year
   (b) Twice in a year
   (c) Thrice in a year
   (d) Four times in a year

19. The alkaloid Santonine is obtained from
   (a) Cumin
   (b) Artemisia
   (c) Brahmi
   (d) Neem

20. Which of the following soil nutrients are susceptible are to loss by volatilization?
   (a) NH$_3$
   (b) NO$_3$
   (c) N$_2$
   (d) All of these

21. The conversion of organic compounds in the soil to inorganic form are called as
   (a) Mineralization
   (b) Immobilization
   (c) Solubilization
   (d) Nitrification

22. Riceyness is a physiological disorder in
   (a) Rice
   (b) Cabbage
   (c) Cauliflower
   (d) Potato
23. Example of stomata closing type of antitranspirant is
   (a) Kaolin  (b) Silicon oil
   (c) Celite  (d) Atrazine

24. NRC for Cashew is located at
   (a) Puttur  (b) Elluru
   (c) Kochi  (d) Trivandrum

25. Choose the correct answer
   1. Nitrogenous fertilizer (i) Monocrotophos
   2. Fungicides (ii) Diammonium phosphate
   3. Growth hormones (iii) Carbendazim
   4. Insecticides (iv) NAA
   (a) 1(ii) 2(iii) 3(iv) 4(i)  (b) 1(iii) 2(i) 3(iv) 4(ii)
   (c) 1(ii) 2(iii) 3(i) 4(iv)  (d) 1(i) 2(ii) 3(iii) 4(iv)

26. Root suckers are
   (a) Insects that suck nutrients from the roots of plants
   (b) Shoots that arise from roots to form new plant
   (c) New plant parts that arise from the branches of fruit trees
   (d) Roots of neighbouring plants that share water with the another plant

27. Mycorrhizae is associated with the following
   (a) Formation of root nodules  (b) Hyphae penetrating the soil
   (c) Found mostly in lower plants  (d) Soil erosion

28. The pH in soils can be raised by adding
   (a) sand  (b) lime
   (c) sulphur  (d) nitrogen

29. In cold places frost damage can be reduced in horticultural crops using these methods except
   (a) Overhead sprinklers at night  (b) Green houses and shade nets
   (c) Wind breaks placement  (d) Appropriate fungicide application

30. Which is not applicable to vegetatively propagated plants?
   (a) To get true to type plants  (b) To protect an elite quality
   (c) To conserve a plant  (d) To get a new type of plant

31. Bioherbicides have been recommended
   (a) To prevent eco-degradation  (b) Because of their ready availability
   (c) Because of their cheap rates  (d) Because of their abundance

32. The process by which nutrient chemicals or contaminants are dissolved and carried away by water, or are moved into a lower layer of soil
   (a) Mulching  (b) Desertification
   (c) Incineration  (d) Leaching

33. Aims of plant breeding are to produce
   (a) Disease-free varieties  (b) High-yielding varieties
   (c) Early-maturing varieties  (d) All of these
34. Main function of biofertilizer is  
   (a) To increase chemical process  
   (b) To increase physiological process  
   (c) To increase biological process  
   (d) To increase photosynthesis process

35. What is the area in floriculture (in 1000 hectare) in India?  
   (a) 40 - 50  
   (b) 60 - 80  
   (c) 100 - 120  
   (d) None of these

36. The instrument, which is used for sowing of seed with fertilizer together at a time, is  
   (a) Seed drill  
   (b) Dibbler  
   (c) Seed sowing behind plough  
   (d) Ferti-cum Seed drill

37. $SO_2$ and $NO_2$ Produce pollution by increasing  
   (a) Alkalinity  
   (b) Acidity  
   (c) Neutrality  
   (d) Buffer action

38. Which is not a green house gas?  
   (a) CFC  
   (b) CH4  
   (c) CO  
   (d) H2

39. BOD is connected with  
   (a) Organic matter  
   (b) microbes  
   (c) Microbes and Organic matter  
   (d) None of these.

40. Itai-Itai disease is due to the toxicity of  
   (a) Lead  
   (b) Cadmium  
   (c) Strontium  
   (d) Tn

41. Which one is green manure?  
   (a) Sesbania  
   (b) Rice  
   (c) Oat  
   (d) Maize

42. Which one of the following describes a system of agriculture where a single crop is grown on a large area?  
   (a) Shifting Agriculture  
   (b) Plantation Agriculture  
   (c) Horticulture  
   (d) Intensive Agriculture

43. Which one of the following is announced by the government in support of a crop?  
   (a) Maximum support price  
   (b) Minimum support price  
   (c) Moderate support price  
   (d) Influential support price

44. Pungency in Radish is due to  
   (a) Solanin  
   (b) Capsaicin  
   (c) Isothiocinate  
   (d) Calcium acetate

45. Planting distance of guava is  
   (a) 10m  
   (b) 6m  
   (c) 3m  
   (d) none of these

46. For jelly production what is required in fruit  
   (a) Protein  
   (b) Pectin  
   (c) Soursness  
   (d) Sweetness
47. King of bitter is known as
   (a) *Momordica charantia*  (b) *Azadirachta indica*
   (c) *Withania somnifera*  (d) *Andrographis paniculata*

48. India ranks first in production of
   (a) Banana  (b) Papaya
   (c) Mangoes  (d) Guavas

49. India, ranks ...................... in fruits and vegetables production in the world
   (a) First  (b) Second
   (c) Third  (d) Fourth

50. The rectangular system of planting of fruit trees mainly focused on
   (a) Intercultural operations can be carried out easily
   (b) Irrigation channel can be made length and breadth wise
   (c) Light can penetrate into the orchard through the large inter spaces between rows.
   (d) All of these

51. Judicious removal of plant part to obtain better and qualitative yield is called
   (a) Cutting  (b) Budding
   (c) Pruning  (d) Layering

52. The process in which a circular ring of bark measuring about 3 cm in length is removed and it hastens bearing by allowing greater accumulation of photosynthesis material in upward portion of the plant is known as
   (a) Notching  (b) Nicking
   (c) Pinching and Topping  (d) Girdling

53. Dwarf Cavendish banana grown in
   (a) Dry Climate  (b) Wet Climate
   (c) Semi Arid Climate  (d) Submerged area

54. The Crop..................... is grown round the year at Nilgris & Palney hill of Tamil Nadu
   (a) Tomato  (b) Potato
   (c) Mango  (d) Apple

55. The states comes under Humid Western Himalayan Region are as
   (a) Jammu and Kashmir, Himanchal Pradesh, Kumaon and Garhwal in Uttaranchal
   (b) Punjab, Delhi, Uttar Pradesh Plains, Uttaranchal and Bihar
   (c) Arunachal Pradesh, Sikkim, Manipur, Assam
   (d) All of these

56. It comes under organic source
   (a) Goa and Sheep  (b) Poultry
   (c) Water hyacinth compost  (d) All of these

57. Organing forming composed of
   (a) Enrichment of soil with organic matter  (b) Cropping System
   (c) Weed management  (d) All of these
58. VAM + PSBs + Azotobacter + Azospirillum found very effective in
   (a) Citrus                     (b) Cabbage
   (c) Banana                    (d) Brinjal

59. Kagzi lime usually propagated by
   (a) Seeds                    (b) Bulbs
   (c) Suckers                  (d) Cuttings

60. Dried Flower units concentrated in
   (a) Bangalore in Karnataka   (b) Tuticorin in Tamil Nadu
   (c) Lucknow in Uttar Pradesh (d) Hydrabad in Andhra Pradesh

61. .............. is an outstanding variety of large, uniform pink fruits with deep pink flesh
   (a) Hafshi                   (b) Harijha
   (c) Allahabad Surkha         (d) Allahabad Safeda

62. The coffee tree can be grown on soils of almost all physical types, ideal soil for its cultivation are
   (a) Forest soil rich in organic matter (b) Red and lateritic
   (c) Well drained, deep and friable loams (d) None of these

63. The spacing adopted for Arabica coffee is
   (a) 1×1 m                    (b) 2×2 m
   (c) 3×3 m                    (d) 4×4 m

64. The process of removal of green fruits after harvesting is known as
   (a) Dipping                  (b) Nipping
   (c) Desuckering              (d) Stripping

65. Oval leaves with not serrated tips of tea is called
   (a) Janam                    (b) Gol pat
   (c) Pseudo leaf              (d) None of these

66. Bench terracing is a technique to protect the soil erosion in ......................... gardens
   (a) Apple                    (b) Banana
   (c) Citrus                   (d) Tea

67. Type of Inflorescence in Tobacco is called
   (a) Ear                     (b) Spikelets
   (c) Panicle                 (d) Receme

68. Percentage of Nicotine content in leaves of *Nicotiana rustica* is ranges between
   (a) 2.0-5.5                  (b) 3.5-8.0
   (c) 8-13                     (d) 3.0-4.5

69. Application of ......................... decreases the quality in tobacco
   (a) Chloride                (b) Calcium
   (c) Boron                   (d) Chlorine

70. Pre planting application of EPTC @6kg/ha is recommended in tobacco for control of
   (a) Orobanche               (b) Cascuta
   (c) Striga                  (d) All of these
71. Topping results in diversion of energy and nutrients to
   (a) Flowers  (b) Stem
   (c) Leaves   (d) Fruits

72. Mulberry silkworm is
   (a) *Bombyx mori*  (b) *Antheraea mylitta*
   (c) *Antheraea assamensis*  (d) *Attacus atlas*

73. How does the bee carry the pollen back to its colony?
   (a) In its body  (b) On its front legs
   (c) On its middle legs  (d) On its rear legs

74. What does pollen consist of mainly?
   (a) Carbohydrates  (b) Protein
   (c) Fat  (d) None of the these

75. How long does a worker bee live in the summer
   (a) about 2 weeks  (b) about 2 months
   (c) about 4 months  (d) about 6 months

76. Indian bee (*Apis cerana indica*) produces an average yield of ......................... per colony per year
   (a) 8-10 kg  (b) 1-2 kg
   (c) 10-12 kg  (d) 3-5 kg

77. What does the beekeeper feed the bees with?
   (a) Milk  (b) Herbs
   (c) Sugar  (d) Fruit

78. What is the name of the bees’ dance when nectar can be collected in fewer than 100 metres?
   (a) Round dance  (b) Wag-Tail dance
   (c) Both (a) & (b)  (d) None of these

79. What is the maximum life of a queen?
   (a) 6 months  (b) 1 year
   (c) 3 years  (d) 5 years

80. What is the name given to a colony of bees?
   (a) A Superorganism  (b) A Supergrass
   (c) A Collective  (d) A Family

81. Where is the surplus honey stored in the bee colony?
   (a) under the offspring or brood nest  (b) in the brood nest
   (c) above the brood nest  (d) in front of the brood nest

82. Litchi honey manufactured from
   (a) Gujarat  (b) Maharastra
   (c) Jammu & Kashmir  (d) Bihar
83. Beekeeping has been included as a supplemental activity under National Horticulture Mission in year
(a) 2005  (b) 2007  (c) 2001  (d) 2010

84. Honey bee mites includes
(a) Varroa mite  (b) Topilaelaps mite  (c) Tracheal mite  (d) All of these

85. Sac-brood disease in bee is caused by
(a) Bacteria  (b) Fungi  (c) Viruses  (d) None of these

86. .... is to protect facial portion from bee stings during handling of bee colonies
(a) Hand gloves  (b) Bee veil  (c) Smoker  (d) Swarm catcher

87. In India, first soil conservation scheme known as dry farming scheme was started in
(a) Dehradun  (b) Manjiri near Pune  (c) Warangal in Andhra Pradesh  (d) Barapani in Shillong

88. Continuous sowing comes under
(a) Broadcast sowing  (b) Patch sowing  (c) Pit and treach sowing  (d) Strip and line sowing

89. The main-patterns of planting which may be adopted are
(a) Line planting  (b) Square planting  (c) Quincunex planting  (d) All of these

90. Clay content is higher in ......................... soil
(a) Black  (b) Red  (c) Desert  (d) All of these

91. “New Leaf” is a
(a) Drought tolerant transgenic of Maize  (b) Bt. transgenic of potato  (c) Bt. transgenic of tomato  (d) None of these

92. Soil pH is expressed in
(a) Exponential terms  (b) Linear terms  (c) Logarithmic terms  (d) Curvilinear terms

93. Which of the following is a slow release N fertilizer
(a) Urea ammonium phosphate (UAP)  (b) Ammonium phosphate sulphate  (c) Azolla  (d) Urea coated

94. Anton De Bary is related to
(a) Father of Mycology  (b) Father of Bryology  (c) Father of Plant Pathology  (d) Father of Indian of Phytopathology

95. Sprinkler consist of a single sprinkler lateral supported by a series of towers is known as ............
(a) Side Roll System  (b) Solid Set or Permanent Sprinklers  (c) Portable (Traveling) Gun System  (d) Center Pivots
96. Puffy fruit in tomato is caused by
   (a) Bacterial attack  (b) Viral attack
   (c) Fungal attack  (d) Physiological disorder

97. ................ is a heat treatment given to a fruit or vegetable either in boiling water or microwave above 100°C
   (a) Pasteurization  (b) Blanching
   (c) Sterilization  (d) None of these

98. ............. producing countries India position is 5th in area, 4th in production and 2nd in productivity
   (a) Rubber  (b) Coffee
   (c) Tea  (d) Tobacco

99. National Horticulture Board (NHB) established during
   (a) 1987  (b) 1984
   (c) 1980  (d) 1989

100. There are important methods to achieve High Density Planting (HDP)
    (a) Use of dwarf scion varieties
    (b) Adopting dwarfing rootstocks and inter-stocks
    (c) Efficient training and pruning
    (d) All of these

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