

**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 Gibberellins are  
(a) Monoterpenoids (b) Triterpenoids  
(c) Diterpenoids (d) All of these
7. Which of the following can be substitute red light effect in plants?  
(a) Auxins (b) Gibberellins  
(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) Gibberlins (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)  $\text{NH}_3$  (b)  $\text{NO}_3$   
(c)  $\text{N}_2$  (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.  $\text{SO}_2$  and  $\text{NO}_2$  Produce pollution by increasing
- (a) Alkalinity (b) Acidity  
(c) Neutrality (d) Buffer action
38. Which is not a green house gas?
- (a) CFC (b)  $\text{CH}_4$   
(c) CO (d)  $\text{H}_2$
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) Tin
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) Capcisin  
(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) Sourness (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 Utter Pradesh (d) Hyderabad 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 a 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 100metres?  
(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 5<sup>th</sup> in area, 4<sup>th</sup> in production and 2<sup>nd</sup> 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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