MIZORAM PUBLIC SERVICE COMMISSION

AGRICULTURE & ALLIED SERVICES (COMBINED TECHNICAL) EXAMINATION, 2024 FOR RECRUITMENT OF

JR. GRADE OF MIZORAM HORTICULTURE SERVICE UNDER HORTICULTURE DEPARTMENT, GOVERNMENT OF MIZORAM, DECEMBER-2024

HORTICULTURE SCIENCE PAPER-II

Time Allowed: 3 hours FM: 200

SECTION - A (Multiple Choice questions) (100 Marks)

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

This Section should be answered only on the OMR Response Sheet provided.

| 1. Growing of tree in very dwarf form(5-20cm) is known as: | | | | |
|--|--|-----|--------------------|--|
| (a) | Cascade Bonsai | (b) | Mame Bonsai | |
| (c) | Hanken Bonsai | (d) | Topiary | |
| 2. Brov | vning of cut apple is due to- | | | |
| (a) | Enzymes | (b) | Yeast | |
| (c) | Moulds | (d) | Bacteria | |
| 3. Man | go tree bears fruit on- | | | |
| (a) | Current season growth | (b) | Last year growth | |
| (c) | Both (a) & (b) | (d) | Very old shoots | |
| 4. The | scientific name for paddy straw mushroom is- | | | |
| (a) | Volvariella spp. | (b) | Agaricus bishopric | |
| (c) | Pleurots spp | (d) | Lentinula edodes | |
| 5. Bartlett is the variety of- | | | | |
| (a) | Apple | (b) | Pear | |
| (c) | Plum | (d) | Cherry | |
| 6. Pusa Nanha variety of Papaya is developed through- | | | | |
| (a) | Hybridization | (b) | Mutation breeding | |
| (c) | Pure line selection | (d) | Back crossing | |
| 7. Tea is commercially propagated by- | | | | |
| (a) | Grafting | (b) | Budding | |
| (c) | Cutting | (d) | Layering | |

| 8. | Gyps | rum is added to correct- | | |
|-----|------|--|--------------|----------------------------|
| | (a) | Saline soil | (b) | Alkali soil |
| | (c) | Sodic soil | (d) | Acidic soil |
| 9. | Whic | h one of the following contain blue flower? | | |
| | (a) | Jacaranda acutifolia | (b) | Delonix regia |
| | (c) | Cassia fistula | (d) | Lagerstomia speciosa |
| 10. | A gy | nodioecious variety of Papaya is- | | |
| | (a) | Pusa Giant | (b) | Pusa Dwarf |
| | (c) | Pusa delicious | (d) | CO1 |
| 11. | The | oungency in Onion is due to- | | |
| | (a) | Allyl propyle disulphide | (b) | Di allyl disulphide |
| | (c) | Capsaicin | (d) | Allyl di propyl disulphide |
| 12. | Whic | ch of the following is a seedless variety of Man | go? | |
| | (a) | Langar | (b) | Alphanso |
| | (c) | Amrapalli | (d) | Sindhu |
| 13. | Whic | ch of the fruit crops require tropical climate? | | |
| | (a) | Litchi | (b) | |
| | ` ' | Banana | (d) | Citrus |
| 14. | | argest genera of Orchid is- | | |
| | | Dendrobium | | Bulbophyllum |
| | ` ´ | Catteleya | (d) | Cymbidium |
| 15. | | Narangi is a variety of- | | |
| | | Rose | • • | Carnation |
| | (c) | | (d) | Marigold |
| 16. | | Il-known cardiotonic is- | | |
| | ` - | Chincona | | Digitalis |
| | | Periwinkle | (d) | Eucalyptus |
| 17. | | mangala is a variety of- | 41.5 | |
| | ` ′ | Arecanut | • / | Coconut |
| 40 | ` / | Rubber | (d) | Betal-vine |
| 18. | | economic part of Isabgol is- | <i>(</i> 1.3 | 0 - 1 |
| | ` ' | Leaf | • / | Seed |
| | ` ' | Husk | | Seed husk |
| 19. | | ert budding is commonly used in propagation o | | 0 |
| | ` , | Rose | | Orange |
| | (c) | Rubber | (a) | Mango |

| 20. | The | calyx splitting disorder is found in- | | | |
|-----|-------|---|--------------|---|--|
| | (a) | Tuberose | (b) | Carnation | |
| | (c) | Rose | (d) | Marigold | |
| 21. | Whic | /hich one of the following is serious disease of onion? | | | |
| | (a) | Red rot | (b) | Purple blotch | |
| | (c) | Late blight | (d) | Early blight | |
| 22. | Whic | ch of the following vegetable is a hydrophyte? | | | |
| | (a) | Taro | (b) | Brinjal | |
| | (c) | Chilli | (d) | Moringa | |
| 23. | Fork | ing is practiced in- | | | |
| | (a) | Radish | (b) | Carrot | |
| | (c) | Tomato | (d) | Potato | |
| 24. | Scien | ntific name of Indian honeybee. | | | |
| | (a) | Apis cerena indica | (b) | Apis florea | |
| | (c) | Apis mellifera | (d) | Apis dorsata | |
| 25. | _ | process of landscaping or gardening, that reduc | es or | eliminates the need for irrigation is known | |
| | as- | | <i>a</i> > | W | |
| | ` ' | Humid landscaping | ` , | Wet landscaping | |
| 26 | | Xeriscaping landscaping | (a) | Hilly landscaping | |
| 26. | | rescence type of cashew is- | a v | D. 1 | |
| | ` / | Pistillate | • • | Poly gamomonoecious | |
| 25 | ` ' | Andro monoecious | (a) | Gynodioecious | |
| 27. | | vertical continuous stem of Cocoa is called- | <i>(</i> 1.) | • | |
| | ` , | Far | | Jorquette | |
| 20 | | Chupon | (d) | Helix | |
| 28. | | sh succulent is commonly known as century pla | | A.1 | |
| | , , | Agave | ` ′ | Aloe | |
| 20 | , , | Litheps | (a) | Portulaca | |
| 29. | • | oak is prepared from- | /L 3 | Makes | |
| | ` , | Green mature nuts | , | Mature nuts | |
| 20 | • • | Immature green nuts | (a) | Ripe nuts | |
| 30. | | type of Guava is- | <i>(</i> 1.) | D. | |
| | • , | Pome | ` ' | Berry | |
| 2.1 | ` ' | Drupe | (a) | Nut | |
| 51. | | la pods are ready for harvest when they are- | (1-) | Constitution of the sections | |
| | ` ' | Green to pale yellow in colour | ` ′ | Green in colour | |
| | (c) | Fully yellow in colour | (d) | Reddish in colour | |

| | | | - 4 - | |
|-----|---|---------------------------------|------------------------|-----------------------|
| 32. | Orna | mental value of Bougainvillea l | ies in- | |
| | (a) | Colourful bracts | (b) | Petals |
| | (c) | Foliage | (d) | Seed |
| 33. | The e | economic part of Sarpgandha i | S- | |
| | (a) | Seeds | (b) | Leaves |
| | (c) | Roots | (d) | Stems |
| 34. | The f | ruit of rose is known as- | | |
| | (a) | Bulb | (b) | Hips |
| | (c) | Caryopsis | (d) | Berry |
| 35. | The | quickest method to lay a lawn i | S- | |
| | (a) | Seedling | (b) | Dibbling |
| | (c) | Turfing | (d) | Dung plastering |
| 36. | Matu | rity of banana reaches when- | | |
| | (a) | Colour breaks | (b) | Angularity disappears |
| | (c) | Skin colour changes | (d) | Makes metallic sound |
| 37. | . Which fruit contains a valuable digestive enzyme called bromelin? | | | |
| | (a) | Pineapple | (b) | Guava |
| | (c) | Apple | (d) | Sapota |
| 38. | The l | National Research Centre for C | Orchid is situated in- | |
| | (a) | West Bengal | (b) | Karnataka |
| | (c) | Sikkim | (d) | Delhi |
| 39. | Bara | dari is found in | garden. | |
| | (a) | English | (b) | Mughal |
| | (c) | Japanese | (d) | Persian |
| 40. | Saurl | kraut is prepared from which c | rop? | |
| | (a) | Tomato | (b) | Cabbage |
| | (c) | Cauliflower | (d) | Lettuce |
| 41. | India | n Ginseng is the common name | e of- | |
| | (a) | Belladona | (b) | Sarpagandha |
| | (c) | Ashwagandha | (d) | Datura |
| 42. | Lead | ing Cardamom growing state is | n India is- | |
| | (a) | TN | (b) | AP |
| | (c) | Kerala | (d) | Karnataka |
| 43. | Tube | rose is propagated by- | | |
| | (a) | Corm | (b) | Bulb |
| | (c) | Seed | (d) | Cuttings |

| 44. | T-bu | dding is also known as- | | |
|-----|-------|---|------|-----------------|
| | (a) | Patch budding | (b) | Ring budding |
| | (c) | Shield budding | (d) | Annular budding |
| 45. | Bute | a monosperma is commonly known as- | | |
| | (a) | Flame of the forest | (b) | Bottle brush |
| | (c) | Golden acacia | (d) | Monkey puzzle |
| 46. | | is prepared from the juice of Casho | ew A | pple. |
| | (a) | Perry | (b) | Nira |
| | (c) | Feni | (d) | Cider |
| 47. | The 1 | National Mushroom research centre is located | at- | |
| | (a) | Ajmer, Rajasthan | (b) | Shimla ,HP |
| | (c) | Solan, HP | (d) | Varanasi, UP |
| 48. | Hollo | ow stem of cauliflower is due to the deficiency | of- | |
| | (a) | Copper | (b) | Znc |
| | (c) | Molybdenum | (d) | Boron |
| 49. | Moh | ini cultivar of Rose is famous for its | | flower colour. |
| | (a) | chocolate | (b) | white |
| | (c) | red | (d) | yellow |
| 50. | The r | naximum vit-A is present in- | | |
| | (a) | Yam | (b) | Lettuce |
| | (c) | Spinach | (d) | Carrot |

SECTION - B (Conventional Type) (100 Marks)

This Section should be answered only on the <u>Answer Sheet</u> provided.

Marks for each question is indicated against it.

Attempt all questions.

- 1. Write briefly on genomic nomenclature of Banana. Describe banana cultivation with special reference to propagation, planting, fertilization, interculture operations and yield. (2+8=10)
- 2. Name four commercial varieties and hybrids of mango. Mention the parents of the hybrid varieties. Describe briefly the characteristics of two of the varieties and two hybrids you have mentioned.

(2+2+6=10)

- 3. Write briefly on cultivation of tomato with special reference to varieties and hybrids, climate and soil requirements, fertilization, aftercare, maturity indices. (10)
- 4. What are cucurbitaceous crops? Give examples of 4 commercial crops under it. What are their common features? Discuss briefly their sex forms. Name common diseases of the crop with control measures.

 (1+1+3+2+3=10)

- 5. What are different types of roses? What is the suitable climatic requirement for the crop? Discuss propagation method and training and pruning of the crop. (2+2+6=10)
- 6. What is the soil and climatic requirements for growing chrysanthemum? Write briefly on commercial varieties, propagation, aftercare and harvesting of the crop. (2+8=10)
- 7. Write in details about climate and soil requirement, propagation and different methods of tapping practices followed in rubber cultivation. (10)
- 8. How are spices and condiments classified? Write briefly on important varieties, propagation, maturity index and stage of harvest of black pepper. (3+7=10)
- 9. What is the role played by medicinal plants in Indian society? Give the botanical name, family, plant part used and medicinal use of the following (any four): Aswagandha, Isabgol, Kalmegh, aloe vera, safed musli.

 (2+8=10)
- 10. Write short notes on the following (any four):

 $(4 \times 2\frac{1}{2} = 10)$

- (a) Growing structures for protected cultivation of horticultural crops.
- (b) Mushroom spawn production.
- (c) Bee keeping.
- (d) Bitterness in cucurbits.
- (e) Physiological disorders of Mango.

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