

# MIZORAM PUBLIC SERVICE COMMISSION

## GENERAL COMPETITIVE EXAMINATIONS FOR RECRUITMENT TO THE POST OF JUNIOR GRADE OF MIZORAM FOREST SERVICE i.e. ASSISTANT CONSERVATION OF FOREST (ACF) UNDER ENVIRONMENT, FOREST & CLIMATE CHANGE DEPARTMENT, GOVERNMENT OF MIZORAM, 2018

### HORTICULTURE

Time Allowed : 3 hours

Full Marks : 100

*The figures in the margin indicate full marks for the questions.*

*Answer any 10 (ten) questions taking 5 (five) questions from each section.*

#### SECTION - A

- Name the different agro-climatic zones recognized by the Indian Council of Agricultural Research (ICAR), for effective land use planning. Under which agro-climatic region does the state of Mizoram lies? (5)
  - Name at least one state that leads in production of the following horticultural crops in India. (Apple, Banana, Orange, Grapes, Papaya, Brinjal, Cabbage, Onion, Arecanut, Cut flowers) (5)
- Define training and pruning. What are the objectives of training and pruning? Elaborate the different methods of training with suitable diagrams. (2+3+5=10)
- Write short notes on any four of the following (4×2½=10)
  - Mulching
  - Advantage of drip irrigation
  - Integrated weed management
  - Multi-Storeyed cropping
  - Vitamin 'C' rich fruits
- Explain the importance of harvesting fruits and vegetables at the right stage of maturity. Describe the different methods of determining maturity of fruits and vegetables. (6+4=10)
- Define Plant Growth Regulators. What are the different Plant Growth Regulators? Describe their role in horticulture crop cultivation? (2+2+6=10)
- What are the different methods of fertilizer application in plants? Describe briefly the different types of organic and inorganic fertilizers. (2+8=10)
- What are the conditions when sexual propagation is preferred over asexual propagation? Describe the importance and methods of seed treatment. (4+3+3=10)

**SECTION - B**

8. Write short notes on *any four* of the following: (4×2½=10)
- (a) Geotropic bending of gladiolus.                      (b) Mulching of Strawberry.  
(c) Low temperature sweetening of potato.            (d) Processing of turmeric.  
(e) Commercial propagation of banana.
9. What are the characteristics of plants suitable for a rock garden and a water garden? Describe the important components of both rock gardens and water gardens (3+3+2+2=10)
10. What are cole crops? Name six cole crops and two varieties each. (2+3+3=10)
11. (a) Classify the following into Temperate, Sub-tropical and Tropical fruits (14×½=7)
- |                  |               |                   |
|------------------|---------------|-------------------|
| (i) Jackfruit    | (ii) Apricot  | (iii) Pomegranate |
| (iv) Loquat      | (v) Pineapple | (vi) Almond       |
| (vii) Plum       | (viii) Bael   | (ix) Mango        |
| (x) Sapota       | (xi) Walnut   | (xii) Citrus      |
| (xiii) Date-palm | (xiv) Banana  |                   |
- (b) Mention one variety each of the following crops (6×½=3)
- |                   |                |
|-------------------|----------------|
| (i) Mango         | (ii) Pineapple |
| (iii) Pomegranate | (iv) Banana    |
| (v) Sapota        | (vi) Apple     |
12. Describe the methods for processing of tea and coffee. (5+5=10)
13. What are the possible causes and remedial measures for alternate bearing of mango? (10)
14. Explain the climatic requirement for cultivation of grapes, guava, pomegranate, apple and banana. (2×5=10)

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