

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

SILVICULTURE

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

1. What do you understand by forest types? Give an account of forest types of Mizoram as per Champion and Seth, 1968 with major species composition. (2+8=10)
2. Differentiate between the following: (4×2.5=10)
 - (a) Silvics and Silviculture
 - (b) Increment felling and improvement felling
 - (c) Translocation and transpiration
 - (d) Pruning and lopping
3. Define the term locality factors. How do these factors affect the decision of plantation undertaken by a forester? (2+8=10)
4. Write notes on the following: (2×5=10)
 - (a) Relative merits of direct seeding and planting.
 - (b) Factors affecting natural regeneration
5. Write short notes on the following: (2×5=10)
 - (a) Role of temperature and light on forest growth
 - (b) Impact of fire on forest regeneration
6. Why is thinning necessary in forest crops? Discuss in brief various methods of thinning. (2+8=10)
7. Write short note on the following: (2×5=10)
 - (a) Steps involved in establishment of a forest nursery.
 - (b) Weed management in Forests

SECTION - B

8. Write short note on the following: (4×2.5=10)
- (a) Silviculture characters of *Dalbergia sisso*
 - (b) Natural regeneration of *Pinus kesiya*
 - (c) Nursery techniques of *Tectona grandis*
 - (d) Phenology of *Abies pindrow*
9. Describe the Indian Irregular shelterwood system with examples of its application in tropical rain forests. (10)
10. Write the silvics and silviculture of *Shorea robusta* under the following heads: (2+3+3+2=10)
- (a) Distribution
 - (b) Natural regeneration
 - (c) Silvicultural characters
 - (d) Utilization
11. Write the silvics of *Cedrus deodara* under the following heads: (2+3+3+2=10)
- (a) Distribution
 - (b) Silvicultural characters
 - (c) Natural regeneration
 - (d) Utilization
12. Write short note on the following: (2×5=10)
- (a) Felling pattern, applicability and relative merits of clear felling system.
 - (b) Culm selection system in bamboo
13. Write notes on the following: (2×5=10)
- (a) Shelterwood coppice system
 - (b) Uniform system of management
14. Give an account of *Pinus* species in Mizoram. Discuss in brief about silvicultural characteristics, artificial regeneration and utilization of *Pinus roxburghii*. (3+7=10)

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