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
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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