

2012

FORESTRY (Optional)

वनशास्त्र (वैकल्पिक)

100627

Time : 3 hours

Maximum Marks : 200

Note :

- (i) Answers must be written in English.
- (ii) Question No. 1 is compulsory. Of the remaining questions, attempt any Four selecting one question from each section.
- (iii) Figure to the RIGHT indicates marks of the respective question.
- (iv) Number of optional questions upto the prescribed number in the order in which they have been solved will only be assessed. Excess answers will not be assessed.
- (v) Candidates should not write roll number, any name (including their own), signature, address or any indication of their identity anywhere inside the answer book otherwise they will be penalised.

1. Answer in short any four of the following :

- (a) Write the botanical name and silvicultural characteristics of teak. 10
- (b) Explain the concept of heritability and genetic gain. 10
- (c) Explain yield regulation in Agroforestry. 10
- (d) Describe the role of working plan in nature conservation. 10
- (e) Briefly describe the first forest national policy after 1947. 10

SECTION - A

2. Answer the following sub questions :

- (a) What are the objectives of silviculture ? Describe the forest types of India. 15
- (b) What do you mean by silviculture system ? Describe the high forest system. 15
- (c) Write the botanical names of five exotic trees along with their country of origin. 10

3. Answer the following sub questions :

- (a) What are the important considerations for selection of nursery site ? Briefly describe transplanting and field planting method. 15
- (b) What is coppice forest system ? Briefly describe clear felling. 15
- (c) Describe nursery raising of *Dalbergia sissoo*. 10

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SECTION - B

4. Answer the following sub questions :
- (a) What is the scope of Agroforestry in India ? Briefly describe thinning and pruning practices for Agroforestry. 15
 - (b) What are the characteristics of saline soils ? Briefly describe the concept of soil fertility and productivity. 15
 - (c) Write the role of trees and forests in environmental conservation. 10
5. Answer the following sub questions :
- (a) What are the objectives of social forestry in India ? Briefly describe important tribes of India. 15
 - (b) What are the causes of soil erosion ? Describe the role of wind breaks and shelterbelts in conserving soil. 15
 - (c) Write the causes of loss of diversity. 10

SECTION - C

6. Answer the following sub questions :
- (a) Write the objectives of forest management. Briefly describe the types of rotation. 20
 - (b) Describe current annual increment and mean annual increment. 10
 - (c) Describe map and map reading. 10
7. Answer the following sub questions :
- (a) Write about working plan organization. Briefly describe working plan for social forestry. 20
 - (b) Write the advantages of remote sensing techniques over traditional methods. 10
 - (c) Describe the land development methods in forestry. 10

SECTION - D

8. Answer the following sub questions :
- (a) Briefly describe the concept of ecosystem. 10
 - (b) Write the scope and importance of non-timber forest produce in India. 10
 - (c) Write the importance of forest protection in India. Briefly describe the methods of tree disease management. 20
9. Answer the following sub questions :
- (a) Write medicinal uses of safed musali and aswagandha. 10
 - (b) Describe pulp and paper industries in India. 10
 - (c) Describe wild life management. Write the fundamental requirements of wild life. 20