

Botany (P.G.)

[CBCS]

M.Sc. Fourth Semester End Examination-2024

[Regular & Supplementary Paper]

PAPER-401

[Silviculture System & Forest Management]

Full Marks: 40

Time: 02 Hrs

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

[Use separate answer script for each unit]

[Unit – I]

[Silviculture System]

F.M - 20

Group-A

1. Answer anyfour question from the followings: 1x4=4

- a) What is pool frost?
- b) Write name of two insects responsibility for decrease of forest productivity.
- c) What is PAN Formation.
- d) Differentiate aspect and exposure.

(2)

- e) What is breast height used in India?
- f) What is girth class?
- g) Why thinning is necessary?
- h) What is volume table?

Group-B

2. Answer any two questions from the following: 4x2=8
- a) How does the altitude effect the growth of the vegetation of different phytogeographical regions.?
 - b) What is the Newton formula for measurement of volume of a fallen log? 2+2
 - c) What is the purpose of standard in coppice with standard system?
 - d) How artificial regeneration can be done in a forest?

Group -C

3. Answer any one question from the following: 1x8 = 8
- a) Write short note on : 4+4
 - i) Role of edaphic factors in forest formation.
 - ii) Indian irregular shelter wood system.
 - b) What are the different formula used to measure volume of a fallen log? Mention any four rules for measurement of diameter of a standing tree. 4+4

(3)

[Unit – III]

[Forest Management]

F.M-20

Group-A

1. Answer any four question from the followings: 1x4=4
- a) What is 'Working Plan' in forest management?
 - b) Write scientific name of two plant species where coppice are found?
 - c) Define felling cycle.
 - d) Differentiate between Clear Strip and Alternate Strip system?
 - e) Define Tending.
 - f) Compare between Sustained yield and Progressive yield?

Group-B

2. Answer any two questions from the following: 4x2=8
- a) Write Short note on shelter wood system of management.
 - b) Discuss characteristics of Selection system? Write advantages and disadvantages of this system. 2+1+1
 - c) Explain different aspects of 'Forest policy-1988'.
 - d) Distinguish between Reserve forest and Protected forest? 2+2

(4)

Group -C

3. Answer any one questions of the following: **1x8 = 8**

a) Why 'Forest management' is called Joint Forest Management (JFM)? How JFM is separated from traditional forest management system? Why is it called Ararabari Model?

3+3+2

b) i) Why clear felling system is not sustainable from management point of view?

ii) How is it separated from Shelter wood system? What type of felling system is applied in dry deciduous Sal forest of South west Bengal and why? When Forest Survey of India was established?

2+3+2+1
