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PG/4th Sem/BOT/19

2019

M.Sc.

4th Semester Examination

BOTANY

Paper - BOT 401

Full Marks : 40

Time : 2 Hours

*The figures in the margin indicate full marks.
Candidates are required to give their answers
in their own words as far as practicable.*

Use separate script for Unit - I and Unit - II.

Unit - I

(Silviculture and Mensuration)

[20 Marks]

1. Answer any *four* questions : 1×4
- (a) What are edaphic factors ?
 - (b) What is pool frost ?
 - (c) Define normal form factor.

[Turn Over]

- (d) What is the breast height used in India ?
- (e) Mention two methods for determination of age of standing tree.
- (f) Mention Huber's formula.
- (g) What is crown length ?

2. Answer any *two* questions : 3×2

- (a) What are different volume tables used in forestry ?
- (b) Write down advantages and disadvantages of Abney's level.
- (c) How solar radiation controls forest density ?
- (d) Mention influence of man and his animals on forest.

3. Answer any *one* question : 10×1

- (a) Mention objectives of reforestation. What are different tropical forest groups found in India.

5+5

- (b) What is girth class ? What precautions to be taken during measuring diameter of a tree using a calliper ? What are the disadvantages of using

(3)

tape in diameter measurement. What is Brandi's
hypsonometer ? 2+4+2+2

Unit - II

(Silviculture system and Forest Management)

1. Answer any *four* from the following : 1×4

- (a) What is artificial regeneration ?
- (b) What do you mean by thinning ?
- (c) What is block or patch clear cut system ?
- (d) What is pruning ?
- (e) What is meant by single tree selection system ?
- (f) Define forest management.
- (g) What is forest conservation ?

5. Write short notes on any *two* of the following : 3×2

- (a) Advantages and disadvantages of Shelterwood system.
- (b) Natural regeneration through seeds.

[Turn Over]

(c) Indian irregular Shelterwood system.

(d) Objective of forest conservation & management.

6. Answer any *one* from the following : 10

(a) What is clear felling system ? Mention the method of removal of mature crop in clear felling system. Describe the methods of artificial regeneration by Taungya or departmental plantation. 2+4+4

(b) Briefly describe the Forest Policy of 1988. 10
