

2015

M.Sc.

2nd Semester Examination

BOTANY

PAPER—BOT-202

Full Marks : 40

Time : 2 Hours

The figures in the right-hand margin indicate full marks.

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

Illustrate the answers wherever necessary.

Unit—I

(Silviculture)

[Marks—20]

Answer all questions.

1. Answer any *five* questions : 1×5
- (a) Define culling.
- (b) What is pollarding?

(Turn Over)

- (c) Give the full form of NTFP.
- (d) Mention scientific names of two tree species ideal for avenue plantation.
- (e) What is stem buttress ?
- (f) What is the clearfelling system ?
- (g) Mention a situation where reforestation is to be practiced.
- (h) What is agrosilvopasture system ?

2. Write short notes on any *two* of the following : $2\frac{1}{2} \times 2$

- (a) Social Forestry.
- (b) Artificial Regeneration.
- (c) Forest types.

3. Define silviculture. Outline the objectives of silviculture. Briefly discuss the scopes of it. 2+4+4

Or

What is natural regeneration ? Discuss on the factors influencing the success of natural regeneration through seeds. 2+8

Unit—II**(Forest Mensuration)***[Marks—20]*

Answer all questions.

4. Answer any *five* of the following :

1×5

- (a) What height is considered commonly as breast height in forestry ?
- (b) How does fluting influence the economic value of timber ?
- (c) Name an instrument used to measure the girth of a tree.
- (d) What step is to be taken to measure the girth of a tree having forking at a height of 5 feet above ground ?
- (e) Name the major parts of Abney's level effective for its functioning.
- (f) Mention two factors affecting economic value of timber.
- (g) Why and when the clear felling is done ?
- (h) What is form height ?

5. Write notes on any *one* of the following : 5×1

- (a) Trigonometric method of height measurement.
- (b) Rules of diameter measurement.

6. What is forest mensuration? What is the basis of determining the time of crop rotation for a species? Write a note on the significance and scopes of such mensuration.

2+2+6

Or

Illustrate the different methods to measure the height of trees with the aid of instruments and in absence of that. What step is to be taken to measure the girth of a tree standing on a slope? How would you consider the volume of a tree forked from its base? Justify your statement.

7+1+2