2016

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 :　　　　　　　　5×1

   (a) What is microclimate ?

   (b) What do you mean by endodynamorphic soil ?

(c) What is the difference between litter and hunus?

(d) Name one shade demander plant.

(e) What is advective frost?

(f) Define thinning.

(g) What is coppice?

(h) Name a forest tender plant.

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

(a) Farm forestry;

(b) Bioclimate;

(c) Natural regeneration from vegetative parts.

3. What is artificial regeneration? Describe any two silvicultural operations related to artificial regeneration.

2+4+4

Or

What are edaphic factors? Describe any two physical and chemical properties of soil influencing forest vegetation.

2+4+4

Unit—II

(*Forest Mensuration*)

[Marks—20]

Answer *all* questions.

4. Answer any *five* of the following : 5×1

   (a) Write down two advantages of callipers used for measurement.

   (b) What is breast height ?

   (c) What is artifical form factor ?

   (d) What is stump height ?

   (e) What is general volume table ?

   (f) What is girth class ?

   (g) What is crop diameter ?

   (h) What is multistage sampling ?

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

   (a) Methods for calculation of volume of wood.

   (b) Methods for determination of age of standing free.

6. What are the instruments used for measurement of height of a tree? State its principles. What is the function of mirror in Abney's level? Why eye height is added to calculate length of a tree?

3+3+2+2

Or

Calculate volume of log using quarter girth formula, when girth of the log is 68 centimeter and length of the log is 1·98 meter. State the objective of forest mensuration. Write a note on forest inventory.

4+2+4

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