M.Sc. 2nd Semester Examination, 2011

BOTANY

PAPER—BOT-202

Full Marks : 40

Time : 2 hours

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

Write the answers to questions of each Unit in separate books

UNIT—I

(*Silviculture*)

[*Marks* : 20]

Answer *all* questions

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

   (*a*) What is sapling ?

(b) What is plant percent ?

(c) Define podosolization.

(d) What is high forest ?

(e) What is Pan formation ?

(f) What is silvics ?

(g) What is pool frost ?

(h) Define Agroforestry.

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

   (i) Objective of silviculture

   (ii) Reasons of salt accumulation in soil

   (iii) Effect of snow on forest

   (iv) Soil profile.

3. What is aspect and exposure ? How does it affects the distribution of forest ? What are the factors of natural regeneration. $2 + 4 + 4$

(Continued)

Or

What is Bioclimate ? Discuss the role of fire and grazeing on forest. $2 + 4 + 4$

UNIT – II

(*Forest Mensuration*)

[*Marks* : 20]

Answer *all* questions

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

   (*a*) What is form quotient ?

   (*b*) What is the basis of determining site quality ?

   (*c*) What is girth class ?

   (*d*) What is tap height ?

   (*e*) What is crop diameter ?

   (*f*) What is general volume table ?

   (*g*) What is yield table ?

   (*h*) What is thinning ?

5. Answer any *two* of the following : $2\frac{1}{2} \times 2$

   (*a*) State the objective of forest mensuration ?

   (*b*) What is quarter girth formula ? How far is it correct ? Explain .

   (*c*) Differentiate between artificial and normal Form factor ?

   (*d*) Give the classification of volume table on variables.

6. What is BH ? Write and explain the rules of BH measurement of a tree. Write a note on forest inventory. $2 + 4 + 4$

   Or

   What are the instruments of height measurement of a tree ? On what principles they are constructed ? What is the function of mirror in Abney's level ? Why eye height is added to calculate the height of a tree. $2 + 4 + 2 + 2$