

**2014**

**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) What is seedling coppice ?
- (b) What is canopy ?
- (c) What are the active factors of soil formation ?

*(Turn Over)*

- (d) Define Non-saline alkali soil. ?
- (e) Define Microclimate.
- (f) What is Silvics ?
- (g) Define Laterization ?
- (h) What is Germinative Capacity ?

2. Answer any *two* of the following : 2½×2

- (i) Distinguish between natural regeneration and Artificial regeneration.
- (ii) On the basis of rainfall how are the forest classified.
- (iii) Why there is Pan formation in soil ? How does it affect the forest trees ?

3. Define Agroforestry. Comment on "Fire is a good servant, but bad master". Write about the frost injury to plants. 2+5+3

Write the effect of snow fall on forest. Explain the influence of Parental rocks on the distribution of tree species in forest.

4+6

**Unit—II****(Forest Mensuration)****[Marks—20]****Answer all questions.**

4. Answer any *five* of the following : 1×5
- (i) Define Mean diameter of a tree.
  - (ii) What is Huber's formula ?
  - (iii) Why is girth measured once and diameter twice ?
  - (iv) What is Lorey's formula ?
  - (v) What do you mean by site of quality ?
  - (vi) What is form height ?
  - (vii) On what principle, Abney's level is constructed ?
  - (viii) At what height the girth of a tree is measured and why ?
5. Answer any *two* of the following :  $2\frac{1}{2} \times 2$
- (a) What is Enumeration ? In which forest area total or complete enumeration is prescribed.
  - (b) Explain the difference between General Volume table and Local Volume table.
  - (c) Explain the method of calculation of Mean basal area.

6. Answer any *two* of the following : 5×2

- (i) How is the age of tree determined ?
  - (ii) Write the differences between the Artificial and Normal form factor.
  - (iii) What is Diameter Class ? Explain its significance.
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