

2018

M.Sc. 4th Semester Examination

BOTANY

PAPER—BOT-401

Subject Code—23

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.

Illustrate the answers wherever necessary.

Use separate Answer-scripts for Unit-I & Unit-II

Unit-I

(Silviculture and Mensuration)

[20 Marks]

1. Answer any four questions : 1×4

(a) What is montane temperate ?

(b) What is pole ?

(Turn Over)

- (c) Define normal form factor.
- (d) What is stand table ?
- (e) What is BH ?
- (f) What is agroforestry ?
- (g) Distinguish latitude and altitude.

2. Answer any *two* questions : 3×2

- (a) How is forest classified on the basis of rainfall ? 3
- (b) Explain quarter girth formula ? Mention its merits & demerits. $1\frac{1}{2}+1\frac{1}{2}$
- (c) Discuss the role of wild and domestic animals on forest. $1\frac{1}{2}+1\frac{1}{2}$
- (d) How artificial regeneration can be done in a forest ? 3

3. Answer any *one* question :

- (a) Explain different methods for height measurement of standing tree ? Give merits and demerits for each method. Mention any four rules for measurement of diameter of a standing tree. $(4+2)+4$

- (b) Mention different forest types of India, citing example of each type. Outline the objectives of silviculture. Briefly discuss its scopes. (4+2)+2+2
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Unit-II

(Silviculture system and Foest Management)

[20 Marks]

4. Answer any *four* of the following : 4×1
- (a) What is secondary felling ?
 - (b) What is hardening ?
 - (c) What do you mean by aspect and exposure ?
 - (d) Give an example of application of uniform system in India.
 - (e) What is germination capacity ?
 - (f) Mention one condition of applicability of coppice system with standards.
 - (g) What is pollarding ?

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

- (a) Variations of clear felling system ;
- (b) Taungya ;
- (c) Selection system ;
- (d) Advantages and disadvantages of uniform system.

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

- (a) Briefly describe the method of felling in coppice system. What is the difference between coppice system and coppice system with standards. Mention the advantages and disadvantages of coppice system. 4+2+4
 - (b) Describe the pattern of felling in Shelterwood system. What are the variations of Shelterwood system. 5+5
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