

SH-III/SA/2105/19

B.Sc. 3rd Semester (Honours) Examination, 2019-20**FORESTRY****Course ID : SA2105****Course Code : SH-SA-2105**

Course Title : Forest Mensuration

Time: 2 Hours**Full Marks: 50***The figures in the margin indicate full marks.**Candidates are required to give their answers in their own words as far as practicable.*

1. Write a definition or short answer of *any ten* of the following: 1×10=10
- (a) Bole height
 - (b) Commercial bole height
 - (c) Stump height
 - (d) d.b.h
 - (e) Girth class
 - (f) 3 feet = _____ Yard (fill in the blanks)
 - (g) Crown width
 - (h) Form Factor
 - (i) How to calculate the area of circular section?
 - (j) Artificial form factor
 - (k) Basal area
 - (l) Forest mensuration
 - (m) 1 square mile = _____ Acres (fill in the blanks)
2. Write short note/define any ten of the following: 2×10=20
- (a) Disadvantages of tree calliper
 - (b) Shadow method
 - (c) Increment per cent
 - (d) Stump analysis
 - (e) Advantages of Abney's Level
 - (f) Objectives of forest mensuration
 - (g) Why breast height has been accepted as a standard height for diameter and girth measurement?
 - (h) What is bark thickness? How it is measured?

- (i) Instrumental error
- (j) Height class
- (k) Kinds of form factor
- (l) Increment borer
- (m) Huber's formula (for measurement of a frustum of solid)
- (n) Uses of form factor in forestry
- (o) How to calculate volume of a standing tree?

3. Write down in brief *any four* of the following:

5×4=20

- (a) What are the importance of Forest Mensuration in forestry?
 - (b) Standard rules for measurement of Diameter and Girth of trees.
 - (c) Explain the current annual increments and mean annual increment with the help of suitable graph.
 - (d) Detailed discussion about the methods of volume estimation in failed trees.
 - (e) Write about the following in brief (i) Pressler's borer (ii) Brandis hypsometer
 - (f) Discuss the principal sources of error in height measurement.
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