

SH-III/NR/2105/19

B.Sc. 3rd Semester (Honours) Examination, 2019-20**FORESTRY****Course ID : NR2105****Course Code : SH-NR-2105**

Course Title : Forest Survey and Engineering

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) Plane table survey
 - (b) An imaginary line joining the points of equal elevation on the surface of the earth represents _____. (fill in the blanks)
 - (c) FSI stands for
 - (d) The vertical distance between consecutive contour lines is called _____. (fill in the blanks)
 - (e) A surveyor's chain is divided into links and each link is _____ long. (fill in the blanks) The length of gunter's chain is _____. (fill in the blanks)
 - (f) Base line
 - (g) Survey of India, map publication directorate is located at _____ (fill in the blanks).
 - (h) Vernier scale is of _____ type (fill in the blanks).
 - (i) PTS stands for. (Plane table surveying)
 - (j) Waterway
 - (k) Igneous rocks
 - (l) Contour lines
 - (m) Chain survey
 - (n) Moulding
 - (o) Cross joint
2. Write short note/ define *any ten* of the following: 2×10=20
- (a) Size of bricks
 - (b) Write down the main characters of fire clay for bricks manufacture
 - (c) Use of bricks
 - (d) Write down the main characters of river sand
 - (e) Listing the materials used substitutes of sand

- (f) Bulking
- (g) Surkhi
- (h) Disadvantage of brick masonry
- (i) Properties of cement
- (j) Types of cement
- (k) Methods used for cement storage
- (l) Type of plaster used
- (m) Cross staff surveying
- (n) Define Retaining walls and breast wall
- (o) Listing the Equipments used in plane table survey

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

5×4=20

- (a) Listing the physical properties is used for the identification and study of minerals.
 - (b) Elaborate different methods to determine the specific gravity.
 - (c) What is cantilever bridge? How it is constructed? What are the disadvantages of this type of bridge?
 - (d) Point out the principle followed for site selection of temporary and permanent bridge construction.
 - (e) Listing the types of culverts generally used in forest roads. Elaborate any two of them.
 - (f) Define Forest survey. Scope of Forest survey and Engineering for forest conservation.
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