



KERALA AGRICULTURAL UNIVERSITY

B.Sc.(Hons) Forestry 2017 Admission

II Semester Final Examination- August 2018

Narm.1201

Forest Survey and Engineering (2+1)

Marks: 50

Time:2 hours

**I Match the following**

(10x1=10)

**A**

**B**

- |                     |                            |
|---------------------|----------------------------|
| 1 Optical square    | Whole circle bearing       |
| 2 Alidade           | Bridge                     |
| 3 Prismatic compass | Temporary datum            |
| 4 Bench mark        | Orientation of plane table |
| 5 Abutement         | Offsets                    |

**State True or False**

- 6 Ranging can be done when the end stations are not intervisible.
- 7 Levelling operations always start from Benchmark.
- 8 Contour lines very close to each other represent steep slope.
- 9 Sum of interior angle of a hexagon is  $720^{\circ}$
- 10 Plane of collimation is also called as height of instrument method.

**II Write Short notes on any FIVE of the following**

(5x2=10)

- 1 Differentiate between whole circle bearing and quadrantal bearing.
- 2 Cross staff survey and its objectives.
- 3 Principles of surveying.
- 4 Chain on sloping ground.
- 5 What is local attraction? How do you detect it?
- 6 Alignment of forest roads in hilly areas.
- 7 Differential levelling.

**III Answer any FIVE of the following.**

(5x4=20)

- 1 Intersection method in plane tabling.
- 2 Theodolite.
- 3 Working principle of prismatic compass.
- 4 Obstacles in chaining with examples.
- 5 What are Bridges? Explain Simple wooden bridge with a neat sketch.
- 6 Check dams.
- 7 Rise and fall method of dumpy level survey.

**IV Write an essay on any ONE of the following**

(1x10=10)

- 1 Field procedure of chain survey with a neat sketch.
- 2 Different parts of a dumpy level and its function

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