

UTKAL GOURAV MADHUSUDAN INSTITUTE OF TECHNOLOGY, RAYAGADA
Internal Assessment
6th Semester-- 2022(Summer), Civil Engg.

TH 1 : LAND SURVEY - II

Full Mark: 20

Time: 1 hour

1. Answer any FIVE (2×5=10)
- a. Define universal transverse mercator.
 - b. Mention any two uses of GPS.
 - c. State any two differences between accuracy and precision.
 - d. Define 7.5 minute series map.
 - e. Define tangent length.
 - f. Define apex distance.
 - g. Define additive and multiplication constants of tacheometry.
2. Answer any TWO (5×2=10)
- a. Describe the principles of tachometry with neat sketch.
 - b. Explain the functions and uses of global positioning system.
 - c. Explain the components of a simple circular curve with neat sketch.
 - d. The following readings were taken using a tacheometer with a multiplying constant of 100 and additive constant of zero.

| Instrument station | Staff station | Cross hair readings | Bearing |
|--------------------|---------------|---------------------|------------------|
| P | A | 1.095,1.895,2.695 | 85 ⁰ |
| P | B | 0.855,1.365,1.875 | 153 ⁰ |

Find the distances PA, PB, elevations of A and B, and the gradient from A to B.
