Reg. No. : | | | | | | | | | | |

Question Paper Code: 31146

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2017

Fourth Semester

Civil Engineering

01UCE406 – SURVEYING - II

(Regulation 2013)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions.

PART A - (10 x 2 = 20 Marks)

1. Define reverse curve.
2. List out the different kinds of transition curves.
3. What are the different types of signals used in triangulation?
4. Name the different corrections to be applied to length of a base line.
5. State the law of weights.
6. What is meant by most probable values?
7. Define scale.
8. Write the sources of error.
9. Define sounding.
10. Give the significance of MSL.

PART - B (5 x 16 = 80 Marks)

11. (a) Explain with neat sketches the different types of horizontal curve. (16)

Or

(b) Explain the setting out of transition curve by offset and angles method. (16)

12. (a) Explain in detail about the different triangulation systems with neat sketches. (16)

Or

(b) Explain any two mechanical solutions and one graphical solution to three point problem. (16)

13. (a) Derive an expression for principle of least squares. (16)

Or

(b) Form the normal equation for X_1, Y_1 & Z in the following equations with respective weights

$3x + 3y + z - 4 = 0$ wt – 2

$x + 2y + 2z - 6 = 0$ wt – 3

$5x + y + 4z - 21 = 0$ wt – 1 (16)

14. (a) Explain the types of EDM instruments. (16)

Or

(b) Summarize the care and maintenance of total station instruments. (16)

15. (a) Determine the how angle and declination of star from following data.

Altitude of star = $22^o\,30'$

Azimuth of the star = 145^o E

Latitude of the observer = 49^o N. (16)

Or

(b) Explain in detail any one method of finding the sounding. (16)

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