

RAJIV GANDHI PROUDYOGIKI VISHWAVIDYALAYA, BHOPAL

New Scheme Based On AICTE Flexible Curricula

Civil Engineering, III-Semester

CE303 Surveying

UNIT-I

Surveying & Levelling :

Basic Definitions of Surveying, Principles , Classification of surveying ,Methods of Linear Measurement Ranging , Accessories for linear measurement ,Chain Surveying , Compass Surveying , Plane Table Surveying ,Correction and Errors Definition of Levelling , types of levelling operations ,Principles , Problems , Computation of Area and Volumes

Unit –II

Theodolite Traversing:

Types, Temporary Adjustment ,latitude & Departure ,plotting & Adjustment ,Omitted Measurements EDM , Trigonometric Levelling

Unit-III

Tacheometry:

Tachometric systems and principles, stadia system, uses of analytic lens, tangential system, subtense system, instrument constant, field work reduction, direct-reading tacheometer , use of tacheometry for traversing and contouring.

Unit-IV

Curves:

Classification and use; elements of circular curves, calculations, setting out curves by offsets and by theodolites, compound curves, reverse curves, transition curves, vertical curves, setting out.

Unit-V

Hydrographic Survey:

Soundings, methods of observations, computations and plotting. Principles of photographic surveying: aerial photography, tilt and height distortions, Setting out works

REFERENCES

1. B.C Punmia , Surveying Vol-II & III ,Laxmi Publication.
2. S.K. Duggal, Surveying Vol. II McGraw Hill Publishing Company Ltd.
3. Saikia MD, Das BM, Das MM, Surveying, McGraw hill
4. T.P. Kanetkar and S.V. Kulkarni Surveying and Leveling-Part-I & II , Pune VidyarthiGrihaPrakashan, Pune.

5. Gopi A, Satikumar R- Advance surveying, Pearson
6. Remote Sensing and image interpretation by Lillesand T.M. and Kiefer R.W.
7. R.Agor, Advance Surveying ,Khanna Publisher
8. Chandra AM, Higher Surveying, New Age International, new Dwlhi
9. Bhavikatti SS, Surveying and Levelling Vol. II, I.K International
10. Venkatramaiah, Surveying, University Press, Mumbai
11. BhattaBasudeb, , Remote Sensing and GIS, Oxford, New Delhi.
12. Subramanian, Surveying &levelling, Oxford, New Delhi.
13. Joseph George Fundamentals of Remote Sensing