

NM Institute Of Engineering and Technology, Bhubaneswar
DEPARTMENT: CIVIL ENGINEERING

LESSON PLAN: Academic Year 2022-23 (Even Semester) COURSE: DIPLOMA SEMESTER: 4TH

Subject/Code: LAND SURVEY Faculty Name: Mr. SUBESH KUMAR DAS

| Sl. No. | Name of the Topic to Cover | Text Book | Teaching Method | Remark |
|---------|--|-----------|-----------------|--------|
| 1 | Surveying: Definition, Aims and objectives | T1 | P | QA |
| 2 | Principles of surveying- plane surveying- traverse surveying- instrumental | T2 | G | QA |
| 3 | Precision and accuracy of measurements, instruments used for measurement of distance, Types of tapes and chains. | T2 | P | QA |
| 4 | Layering Scenario | T3 | G | QA |
| 5 | Corrections to measured lengths due to-incorrect length, temperature variation, pull, sag, | T1 | G | QA |
| 6 | numerical problem applying corrections. | R1 | G | QA |
| 7 | numerical problem applying corrections. | T2 | G | QA |
| 8 | Equipments for chaining | R1 | G | QA |
| 9 | Ranging-Purpose and Types | T1 | G | QA |
| 10 | Methods of Chaining | T2 | P | QA |
| 11 | Setting Perpendicular In Chain | R1 | G | QA |
| 12 | Purpose Of Chain surveying | T1 | P | QA |
| 13 | Offsets – Necessity | T2 | G | QA |
| 14 | Errors in chain surveying | T3 | G | QA |
| 15 | ANGULAR MEASUREMENT AND COMPAS SURVEYING : | T1 | G | QA |
| 16 | Measurement of angles with chain, tape & compass | T2 | G | QA |
| 17 | Compass – Types, features, parts, merits & demerits, testing & adjustment | T2 | P | QA |
| 18 | Designation of angles- concept of meridians | T1 | G | QA |
| 19 | Use of compasses | R1 | G | QA |
| 20 | Effects of earth's magnetism | R2 | G | QA |
| 21 | Errors in angle measurement with compass | R1 | G | QA |

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| 22 | Principles of traversing | T3 | P | OK |
| 23 | Local attraction | T2 | G | OK |
| 24 | Errors in compass surveying | T1 | G | OK |
| 25 | Plotting of traverse | T3 | G | OK |
| 26 | X.25 | T2 | G | G II |
| 27 | MAP READING CADASTRAL MAPS & NOMENCLATURE | T2 | P | OK |
| 28 | Study of direction, Scale, Grid Reference and Grid Square Study of Signs and Symbols | T1 | P | OK |
| 29 | Cadastral Map Preparation Methodology | T2 | G | OK |
| 30 | Unique identification number of parcel | T1 | G | OK |
| 31 | Positions of existing Control Points and its types | T2 | G | OK |
| 32 | Adjacent Boundaries and Features, Topology Creation and verification | T2 | G | OK |
| 33 | PLANE TABLE SURVEYING | T3 | G | OK |
| 34 | Objectives, principles and use of plane table surveying | R1 | P | OK |
| 35 | Instruments & accessories used in plane table surveying. | R1 | P | OK |
| 36 | Methods of plane table surveying – (1) Radiation, (2) Intersection, (3) Transsection / AA Description | T2 | G | OK |
| 37 | Statements of TWO POINT and THREE POINT PROBLEM | T3 | G | OK |
| 38 | THEODOLITE SURVEYING AND TRAVERSING: | T3 | G | OK |
| 39 | Purpose and definition of theodolite surveying Transit instrument - Description of features, component parts, Fundamental axes of a theodolite, concept of vernier, reading a vernier, | T2 | P | OK |
| 40 | Concept of transiting - Measurement of horizontal and vertical angles. | T3 | G | OK |
| 42 | Determination of areas, computation of areas from plans | T2 | G | OK |
| 43 | Calculation of area by using ordinate rule, trapezoidal rule, Simpson's rule. | R1 | G | OK |
| 44 | Methods of contouring, plotting contour maps, Interpretation of contour maps, toposheets | T2 | G | OK |

Registration No. 721138V01009

1) Answer in the right hand
a)

Principles of Traversing

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| | 45 | R1 | P | |
|-------------------|--|-------------------------|---|----|
| | Calculation of volumes by prismatical formula and trapezoidal formula. Prismoidal corrections, curvature correction for volumes | | | OK |
| Faculty Signature | S. P. K. Kumar Dm | | | |
| | | Method of Teaching | | |
| | | G: Green Board Teaching | | |
| | | P: Power Point Teaching | | |