**Lesson Plan**

**Name of faculty : Guest Faculty**

**Discipline : CIVIL**

**Semester : 4TH**

**Subject : SURVEYING-II**

**Lesson Plan Duration** : **15 weeks (from January, 2018 to April, 2018)**

**(Lecture/Practical) per week: : Lectures: 03 hours, Tutorials: 02hours**

 **(in hours)**

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| **WEEK** | **L NO.** | **Topic** | **Practical day** | **Partical Name** |
| 1st | 1 | Introduction | 1 | Study of theodolite, Permanent adjustment |
| 2 | height and distances-base of the object accessible, |  |  |
| 3 | base of object inaccessible |  |  |
| 2nd | 4 | geodetical observation refraction and curvature, | 2 | Measurement of horizontal angle |
| 5 | axis signal correction difference in elevation between two points. |  |  |
| 6 | Triangulation systems, classification |  |  |
| 3rd | 7 | strength of figure selection of triangulation s grade of triangulation. | 3 | Measurement of vertical angle |
| 8 | field work of triangulation stations triangulation computations |  |  |
| 9 | introduction to E.D.M. instruments |  |  |
| 4th | 10 | Types of errors, definition of weight pf an observation | 4 | Tacheometric constants, |
| 11 | most probable values, law of accidental errors, law of weights, |  |  |
| 12 | determination of probable error (different cases with examples) |  |  |
| 5th | 13 | Numerical problem | 5 | Calculating horizontal distance |
| 14 | Numerical problem |  |  |
| 15 | adjustment of triangulation figures by method of least squares. |  |  |
| 6th | 16 | Numerical problem | 6 | REVISION. |
| 17 | Numerical problem |  |  |
| 18 | Definitions of astronomical terms |  |  |
| 7th | 19 | star at elongation, star at prime vertical star at horizon | 7 | 1st Viva Voce. |
| 20 | star at culmination, |  |  |
| 21 | Napier's rule of circular parts |  |  |
| 8th | 22 | various time systems: sidereal, apparent, | 8 | Setting of simple circular. |
| 23 | Numerical problem |  |  |
| 24 | Numerical problem |  |  |
|   9th | 25 | Numerical problem | 9 | off set from long chord |
| 26 | Numerical problem |  |  |
| 27 | equation of time-its cause |  |  |
| 10th | 28 | solar and mean solar time | 10 | REVISION |
| 29 | celestial coordinate systems |  |  |
| 30 | Numerical problem |  |  |
| 11th | 31 | Numerical problem | 11 | off set from chord produced  |
| 32 | principle of least square |  |  |
| 33 | Numerical problem |  |  |
| 12th | 34 | Introduction: types of photographs | 12 | 2nd Viva Voce |
| 13th | 35 | Types of aerial photographs | 13 | An exercise of triangulation including base line measure  |
| 36 | height displacements in vertical photographs |  |  |
| 37 | aerial camera |  |  |
| 14th | 38 | stereoscopic vision and stereoscopies | 14 | REVISION |
| 39 | height determination from parallax measurement, flight planning, |  |  |
| 40 | Numerical problem |  |  |
| 41 | Concept of G.I.S |  |  |
| 15th | 42 | data input, storage & output | 15 | 3rd Viva Voce |
| 43 | Numerical problem |  |  |
| 44 | G.P.S. -Basic Components |  |  |
| 45 | Numerical problem |  |  |