

Specimen of lesson Plan

Name of the Faculty Ms. Sonia Saini
Discipline CIVIL ENGG.
Semester 4TH
Subject SURVEYING – II
Lesson Plan Duration 15 weeks(from January, 2018 to April,2018)

| Week | Lecture Day | Theory Topic (inculding assignment/test) | Practical Day | P |
|------|-------------|--|---------------|--|
| 1st | 1st | Contouring:-Concept of contours, purpose of contouring, contour interval and horizontal equivalent, | 1st | Contouring:-Pre by radial line me Tangent Clinom |
| | 2nd | factors effecting contour interval, characteristics of contours, methods of contouring: | 2nd | Prepartion of m |
| 2nd | 3rd | Direct and indirect, use of stadia measurements in contour survey, interpolation of contours; use of contour map | 3rd | Preparing a cont of squares |
| | 4th | Drawing cross section from a contour map; marking alignment of a road, railway and a canal on a contour map, | 4th | Prepartion of m |
| 3rd | 5th | computation of earth work and reservoir capacity from a contour map | 5th | Preparing a cont Road/Railway tr cross sections |
| | 6th | Theodolite Surveying:Working of a transit vernier theodolite, axes of a theodolite and their relation; temporary adjustments of a transit theodolite | 6th | Prepartion of m |
| 4th | 7th | concept of transiting, swinging, face left, face right and changing face | 7th | Theodolite:Takin mounting on the back in the box |
| | 8th | measurement of horizontal and vertical angles. Prolonging a line (forward and backward) | 8th | Study of a transi temporary adju |
| 5th | 9th | measurement of bearing of a line; traversing by included angles and deflection angle method; | 9th | Reading the ver the least count, horizontal angle reiteration meth |
| | 10th | traversing by stadia measurement, theodolite triangulation, | 10th | Measurement o use of tachomet |

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| 6th | 11th | Plotting a traverse; concept of coordinate and solution of omitted measurements (one side affected), | 11th | Exercise/viva-vo |
| | 12th | errors in theodolite survey and precautions taken to minimize them; limits of precision in theodolite traversing. | 12th | Measurement of a line |
| 7th | 13th | Height of objects – accessible and non-accessible bases | 13th | Running a close theodolite (at least plotting |
| | 14th | Tachometric surveying:-Tachometry, Instruments to be used in tachometry | 14th | Height of objects accessible bases |
| 8th | 15th | methods of tachometry, stadia system of tachometry, | 15th | Height of objects accessible bases |
| | 16th | general principles of stadia tachometry, | 16th | Exercise/viva-vo |
| 9th | 17th | examples of stadia tachometry and Numerical problems. | 17th | Exercise/viva-vo |
| | 18th | Curves:Simple Circular Curve: Need and definition of a simple circular curve; Elements of simple circular curve - Degree of the curve, radius of the curve | 18th | Curves:-Setting out curve with given methods a) Offsets produced b) One |
| 10th | 19th | (Apex point), tangent point, length of curve, | 19th | Curves:-Setting out curve with given methods a) Offsets produced b) One |
| | 20th | long chord deflection angle, | 20th | Minor instruments and use of minor Ceylon Ghat Transit Clinometer, Pantometer etc |
| 11th | 21st | Apex distance and Mid-ordinate. Setting out of simple circular curve: By linear measurements only: - Offsets from the tangent | 21st | Use of planimeter |
| | 22nd | - Successive bisection of arcs - Offsets from the chord produced b) By tangential angles using a theodolite | 22nd | Use of planimeter |
| 12th | 23rd | b) By tangential angles using a theodolite | 23rd | Exercise/viva-vo |

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| | 24th | Revision/Assignment | 24th | Demonstration through field visit and other government |
| 13th | 25th | Introduction to the use of Modern Surveying equipment and techniques such as: a) EDM or Distomat b) Planimeter | 25th | Total Station (or |
| | 26th | c) Total station d) Introduction to remote sensing, GIS and GP | 26th | Total Station (or |
| 14th | 27th | Minor Instruments:-Introduction and use of minor instruments like Ceylon Ghat Tracer, Clinometer, Pantagraph, Abney Level etc | 27th | Exercise/viva-vo |
| | 28th | Use of planimeter for computing areas | 28th | Exercise/viva-vo |
| 15th | 29th | Revision | 29th | Exercise/viva-vo |
| | 30th | Assignment | 30th | Exercise/viva-vo |