

SHREE RAMKRISHNA INSTITUTE OF SCIENCE AND TECHNOLOGY

LESSON PLAN

SESSION : 2014-15
 SEMESTER : 3RD
 DEPARTMENT: CIVIL ENGINEERING
 SUBJECT : SURVEYING (SUR)
 TEACHER : PRANAB KUMAR MAJUMDER (PKM)
 TIME : 48 PERIODS

DAY/ PERIOD	TOPIC	SUB-TOPIC
1	Introduction	Introduction to the subject – Types of Surveying
2	Distance measurement	Measurement of horizontal distances
3	Chain Surveying	Chain Surveying – Principle, Instruments
4	' '	Selection of station points, Survey lines, Offsets
5	' '	Field book entry, Preparation of map
6	' '	Errors in chain measurement, Shrinkage of map – corrections
7	' '	Errors in tape measurement – corrections
8	' '	Slope correction, Limiting offset, Setting out right angles
9	' '	Obstacles in chaining
10	' '	Area measurement of a field
11	Compass Surveying	Compass Surveying – Principle, Types of bearing
12	' '	Relation between bearings and included angles
13	' '	Numerical problems on bearings, included angles
14	' '	Prismatic compass – Description and use
15	' '	Local attraction and correction
16	' '	Traversing – Open and Closed – Graphical adjustment of closing error
17	Levelling	Levelling - Definitions
18	' '	Types of leveling instruments – Description
19	' '	Terms related to leveling
20	' '	Temporary adjustment of Dumpy level
21	' '	Recording in Level Book and reduction of level – Height of instrument method – Numerical problems
22	' '	Reduction of level – Rise and Fall method – Numerical problems
23	' '	Shifting of Instrument, recording in level book and reduction of level – Numerical problems
24	' '	Types of leveling –Graphical representation of Ground Profile
25	' '	Errors in leveling – Permanent Adjustment of Dumpy Level for Bubble Tube and Line of Collimation
26	' '	Curvature and Refraction correction – Reciprocal Levelling – Numerical Problems
27	Contouring	Contouring – Definitions
28	' '	Characteristics of Contours
29	' '	Methods of contouring
30	' '	Use of contour map
31	Area Measurement	Area Measurement – Methods – Graphical, Instrumental (Planimeter)
32	' '	Numerical methods
33	' '	Numerical problems on area measurement

DAY/ PERIOD	TOPIC	SUB-TOPIC
34	Plane Table Surveying	Plane Table Surveying – Principle, Equipments and Accessories
35	‘ ‘	Working with Plane Table – Fixing, Levelling, Centering, Orientation
36	‘ ‘	Methods of Plane Table Surveying – Radiation, Intersection, Traversing, Resection
37	‘ ‘	Three Point Problem
38	‘ ‘	Errors in Plane Table Surveying
39	‘ ‘	Comparison of Chain, Compass and Plane Table Surveying
40	Revision	Length measurement – correction of errors
41	‘ ‘	Chain surveying
42	‘ ‘	Field book entry and drawing of map
43	‘ ‘	Compass surveying and Graphical adjustment
44	‘ ‘	Levelling
45	‘ ‘	Level book entry and graphical presentation
46	‘ ‘	Contouring
47	‘ ‘	Area measurement
48	‘ ‘	Plane table surveying