LESSON PLAN

Name of the Institute:	C. V. Raman Polytechnic
Department:	Computer Science & Engineering
Semester/Division/Branch:	5th sem/CSE
Subject Name with code:	Software Engineering(TH-3)
Total No. of Class (Required):	60
Faculty Name:	Kshyamasagar Mahanta

Class No.	*Brief description of the Topic/Chapter to be taught*	Remarks
1	**Introduction to Software Engineering**	
2	Program vs. Software product	
3	Emergence of Software Engineering	
4	Computer Systems Engineering	
5	Software Life Cycle Models	
6	Classical Water fall model	
7	Iterative Water fall model Prototyping modelEvolutionary model Spiral model	
8	**Software Project Management**	
9	Responsibility of Project Manager Project Planning	
10	Metrics for Project size estimation(LOC and FP)Project Estimation Techniques	
11	COCOMO Models, Basic, Intermediate andcomplete	
12	Organization and Team structureStaffing	
13	Risk Management Configuration Management	
14	**Requirement Analysis and specification**	

15	Requirements gathering and analysis	
16	Software Requirements SpecificationContents of SRS	
17	Characteristics of Good SRS	
18	Organization of SRS	
19	Techniques for representing complexing logic	
20	**Software Design**	
21	What is a Good S/W design	
22	Cohesion and coupling	
23	Neat arrangement	
24	S/W Design approaches	
25	Structured analysis	
26	Data Flow Diagrams	
27	Symbols used in DFD	
28	Designing DFD	
29	Developing DFD model of a system	
30	Shortcomings of DFD Structured design	
31	Principles of transformation of DFD to Structure	
32	Transform analysis and Transaction Analysis Design Review	
33	**User Interface Design**	
34	Characteristics of Good Interface	
35	Basic concepts of UID	
36	Types of User interfaces	
37	Components based GUI development	
38	**Software Coding & Testing**	
39	Coding Code Review	
40	Code walk through Code inspections and software Documentation	
41	Testing Unit testing Black Box Testing	

42	Equivalence class partitioning and boundary valueanalysis White Box Testing	
43	Different White Box methodologies	
44	statement coverage branch coveragecondition coverage path coverage	
45	cyclomatic complexity	
46	data flow based testing	
47	mutation testing	
48	Debugging approaches	
49	Debugging guidelines	
50	Integration Testing	
51	Phased and incremental integration testing	
52	testing	
53	Performance Testing, Error seeding	
54	General issues associated with testing	
55	**Software Reliability**	
56	Software Reliability	
57	Different reliability metrics	
58	Reliability growth modeling	
59	Software quality	
60	Software Quality Management System	

Signature of the Faculty

Signature of the H.O.D