

**L. D. COLLEGE OF ENGINEERING**  
**DEPARTMENT OF INFORMATION TECHNOLOGY**  
**LESSON PLANNING**

**SUBJECT NAME: SYSTEM PROGRAMMING**

**SUB CODE: 2150708**

**SEMESTER: 5<sup>th</sup> A**

**L/T/P: (4/0/2)**

**AY: 2018**

TEACHING SCHEME			CREDITS	EXAMINATION MARKS						TOTAL MARKS
				THEORY MARKS			PRACTICAL MARKS			
				ESE (E)	PA (M)		PA (V)			
L	T	P	C		PA	ALA	ESE	OEP	PA (I)	
4	0	2	6	70	20	10-	20	10	20	150

Sr No	Units/Modules/Topics & Sub Topics & Module Weightage	Hrs Plan	Proposed Date	Actual Date
	<b>I. Overview of System Software (CST)</b>	<b>6</b>		
1	Introduction , Software, Software Hierarchy	1	21/06/2018	
2	Systems Programming	1	28/06/2018	
3	Machine Structure, Interfaces, Address Space, Computer Languages ,Tools	1	05/07/2018	
4	Life Cycle of a Source Program	1	12/07/2018	
5	Different Views on the Meaning of a Program	1	19/07/2018	
6	System Software Development, Recent Trends in Software Development,Levels of System Software	1	26/07/2018	
	<b>II. Overview of Language Processors (MBP)</b>	<b>6</b>		
7	Programming Languages and Language Processors	1	19/06/2018	
8	Language Processing Activities, Program Execution	1	20/06/2018	
9	Fundamental of Language Processing, Symbol Tables	1	22/06/2018	
10	Fundamental of Language Processing, Symbol Tables	1	26/06/2018	
11	Data Structures for Language Processing: Search Data structures,	1	27/06/2018	
12	Allocation Data Structures	1	29/06/2018	
	<b>III. Assemblers (CST)</b>	<b>6</b>		
13	Elements of Assembly Language Programming Design of the Assembler, Assembler Design Criteria	1	02/08/2018	
14	Design of the Assembler, Assembler Design Criteria	1	09/08/2018	
15	Types of Assemblers, Two-Pass Assemblers, One-Pass Assemblers	1	16/08/2018	
16	Single pass Assembler for Intel x86, , Algorithm of Single Pass Assembler	1	23/08/2018	
17	Multi-Pass Assemblers, Advanced Assembly Process	1	30/08/2018	
18	Variants of Assemblers ,Design of two pass assembler Class Test 1	1	06/09/2018	
	<b>IV. Macro Processors (MBP)</b>	<b>8</b>		
19	Introduction ,Macro Definition and Call, Macro Expansion	1	03/07/2018	
20	Nested Macro Calls, Advanced Macro Facilities	1	04/07/2018	
21	Design Of a Macro Pre-processor, Design of a Macro Assembler	1	06/07/2018	

22	Functions of a Macro Processor	1	10/07/2018	
23	Basic Tasks of a Macro Processor,	1	11/07/2018	
24	Design Issues of Macro Processors, Features	1	13/07/2018	
25	Macro Processor Design Options	1	17/07/2018	
26	One-Pass Macro Processors, Two-Pass Macro Processors	1	18/07/2018	
	<b>V. Loader &amp; Linkers (MBP)</b>	<b>6</b>		
26	Relocation of Linking Concept, Design of a Linker, Self-Relocating Programs,	1	20/07/2018	
27	Linking in MSDOS, Linking of Overlay Structured Programs	1	24/07/2018	
28	Dynamic Linking, Loaders, Different Loading Schemes	1	25/07/2018	
29	Sequential and Direct Loaders	1	27/07/2018	
30	Compile-and-Go Loaders, General Loader Schemes	1	31/07/2018	
31	Absolute Loaders, Relocating Loaders, Practical Relocating Loaders, Linking Loaders, Relocating Linking Loaders, Linkers v/s Loaders	1	01/08/2018	
	<b>VI. Scanning and Parsing_ (MBP)</b>	<b>6</b>		
32	Programming Language Grammars	1	03/08/2018	
33	Classification of Grammar	1	07/08/2018	
34	Ambiguity in Grammatic Specification	1	08/08/2018	
35	Scanning	1	10/08/2018	
36	Parsing, Top Down Parsing, Bottom up Parsing	1	14/08/2018	
37	Language Processor Development Tools, LEX, YACC	1	21/08/2018	
	<b>VII. Compilers_ (CST)</b>	<b>5</b>		
38	Causes of Large Semantic Gap	1	24/08/2018	
39	Binding and Binding Times, Data Structure used in Compiling	1	28/08/2018	
40	Gap Scope Rules, Memory Allocation	1	29/08/2018	
41	Compilation of Expression, Compilation of Control Structure	1	31/08/2018	
42	Code Optimization	1	04/09/2018	
	<b>VIII Interpreters &amp; Debuggers (MBP)</b>	<b>4</b>		
43	Benefits of Interpretation ,Overview of Interpretation	1	13/09/2018	
44	The Java Language Environment, Java Virtual Machine	1	20/09/2018	
45	Types of Errors, Debugging Procedures	1	27/09/2018	
46	Classification of Debuggers	1	04/10/2018	

**Prepared By:**

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