Unit	Sub Unit	No. of Lecture(s)	Topics	Reference Chapter/ Additional Reading	Teaching Methodology	Evaluation Parameters
Introduction to System Software						
1	1.1	1/2	Introduction to Computer and it's Structure	DM#1 Pg. no. 2-4	Lecture , Discussion	Quiz-1
	1.2	1/2	Computer Programming and programming languages	DM#2 Pg. no. 27	Lecture	
	1.3	1	Programming Languages	DM#2 Pg. no. 28-30	Lecture	
	1.4	1	Language Processors	DM#2 Pg. no. 30-32	Lecture, Demonstration	
	1.5	1	Program Development Cycle	SC#1 Pg. no. 8	Lecture	
Compiler						
2	2.1	1	The Structure of Compiler	SC#1 Pg. no. 3-4	Lecture, Demonstration	Unit Test-1
	2.2	2	Compiler Development Approach	Internet URL: http://www.icse.s5.com/notes/m3.html#P13	Pre-Preparation by a student, Collaboration	
	2.3	2	Types of Compilers and Language Specification	DM#2 Pg. no. 40- 51	Lecture, Demonstration	
	2.4	2	Grammars and Parsing Techniques	DM#6 Pg. no. 198-204	Interactive Lecture	
	2.5	2	Compiler Development Tools	DM#6 Pg. no. 236-239	Lecture, Demonstration	
	2.6	1	Interpreter	LL#5 Pg. no. 298-299	Lecture, Demonstration	
Assembler and Macro Processor						
3	3.1	2	Architecture of 8086	Microprocessor Interfacing & Programming, By Hall Douglas V. , Tata McGraw-Hill Pg. no. 2.10-2.14	Learning by teaching , Lecture	Unit Test-1
	3.2	3	Assembly Language	DM#3 Pg. no. 72-77	Lecture, Demonstration, Class Exercise	
	3.3	2	Assembler Design Approach and it's Data Structure	DM#3 Pg. no. 112-116	Lecture, Demonstration	
	3.4	1	Two-pass Assembler	DM#3 Pg. no. 82,85-86, 88-89, 92-93, 95-98	Lecture, Demonstration	
	3.5	1	Macro Processor Design Approach and it's Data Structure	DM#4 Pg. no. 139-144	Lecture, Demonstration	
	3.6	1	One-Pass Macro Processor Algorithm	DM#4 Pg. no. 144-148	Lecture, Demonstration	

Loader and Linker

4	4.1	1	Address Binding, Loader Functions and Loader Schemes	DM#5 Pg. no. 161-163	Lecture, Demonstration	Unit Test-2
	4.2	1	Dynamic Loading and Linking	DM#5 Pg. no. 190-192	Lecture, Demonstration	
	4.3	2	Absolute Loader's Algorithm	LL#3 Pg. no. 130-132	Lecture, Demonstration	
	4.4	2	Algorithm and Data structures for Linking Loader	LL#3 Pg. no. 148-154	Lecture, Demonstration	
	4.5	2	Linkers and Linkage Editors	LL#3 Pg. no. 159-162	Lecture, Demonstration	
	4.6	1	Object Files	DM#5 Pg. no. 168-169	Lecture, Demonstration	

Software Tools

5	5.1	1	Software Tools for Program Development	DM#8 Pg. no. 330-340	Pre-Preparation by a student, Collaboration	Unit Test-2
	5.2	2	Editor: Design and User Interface	DM#8 Pg. no. 341-343	Lecture, Demonstration	
	5.3	1	Programming Environment and Integrated Development Environments	DM#8 Pg. no. 345 - 347	Lecture, Demonstration	
	5.4	2	Principles of IDE	DM#8 Pg. no. 347 - 352	Lecture, Demonstration	

Operating System and Device Drivers

6	6.1	2	Debugger Functionalities	DM#9 Pg. no. 343 - 345	Discussion	Quiz-2
	6.2	2	Debug Monitors		Lecture, Demonstration	
	6.3	2	Debugger Architecture	https://wiki.mozilla.org/Debugger_Architecture	Lecture, Demonstration	
	6.4	1	Debugger Facilities	SC#8 Pg. no. 181	Lecture, Demonstration	
	6.5	2	Debugger Internal Mechanism Operating	SC#8 Pg. no. 182-183	Lecture, Demonstration	

Leland L. Beck, System Software – An Introduction to Systems Programming, Pearson Education Asia. [LL#]

D. M. Dhamdhere, Systems Programming and Operating Systems, Tata McGraw-Hill. [DM#]

Santanu Chattopadhyay, System Software, Prentice-Hall India. [SC#]

Alfred V. Aho, Monica S. Lam, Ravi Sethi, Jeffrey D. Ullman, Compilers: Principles, Techniques, and Tools, Pearson Education Asia. [AA#]

Kenneth C. Louden, Compiler Construction: Principles and Practice, (Thomson/Cengage). [KL#]

Note : # denotes chapter number