



KSSSEM

K.S. SCHOOL OF ENGINEERING AND MANAGEMENT, BENGALURU - 560109

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

NAME OF THE STAFF : Mrs. Chandana V S

SUBJECT CODE/NAME : 18CS61/SYSTEM SOFTWARE AND COMPILERS

SEMESTER/SEC/YEAR : VI / B / III

ACADEMIC YEAR : 2022-2023

Sl. No.	Topic to be covered	Mode of Delivery	Teaching Aid	No. of Periods	Cumulative No. of Periods	Proposed Date	Execution Date
MODULE 1							
1	Introduction to System Software,	L+D	BB+LCD	1	1	20/3/2023	20/3/23
2	Machine Architecture of SIC	L+D	BB+LCD	1	2	21/3/2023	20/3/23
3	Machine Architecture of SIC/XE	L+D	BB+LCD	1	3	25/3/2023	28/3/23
4	Assemblers: Basic assembler functions,	L+D	BB+LCD	1	4	27/3/2023	23/3/23
5	Program Relocation	L+D	BB+LCD	1	5	28/3/2023	24/3/23
6	Programs on object generation(SIC)	L+D	BB+LCD	1	6	29/3/2023	27/3/23
7	Programs on object generation(SIC/XE)	L+D	BB+LCD	1	7	29/4/2023	28/3/23
8	Machine independent assembler features	L+D, PS	BB+LCD	1	8	01/4/2023	28/3/23
9	Assembler design options	L+D, PS	BB+LCD	1	9	4/4/2023	30/3/23
10	Basic Loader function	L+D, PS	BB+LCD	1	10	5/4/2023	3/4/23
MODULE 2							
11	Introduction: Language Processors,	L+D	BB+LCD	1	12	5/4/2023	5/4/23
12	The structure of a compiler	L+D	BB+LCD	1	13	10/4/2023	5/4/23
13	The evaluation of programming languages and the science of building compiler, Applications of compiler technology	L+D	BB+LCD	1	14	11/4/2023	6/4/23
14	Lexical Analysis: The role of lexical analyzer, Input buffering	L+D	BB+LCD	1	15	12/4/2023	11/4/23

	Assignment 1: Written assignment	Offline	Assignment book	0	15	12/4/2023	11/4/23
16	Input buffering(contd)	L+D	BB+LCD	1	16	12/4/2023	12/4/23
17	Specifications of token,	L+D	BB+LCD	1	17	15/4/2023	19/4/23
18	Specifications of token cont	L+D	BB+LCD	1	18	24/4/2023	19/4/23
19	Recognition of tokens	L+D	BB+LCD	1	19	25/4/2023	21/4/23
20	Recognition of tokens cont	L+D	BB+LCD	1	20	26/4/2023	21/4/23
21	Recognition of tokens(transition diagrams)	L+D	BB+LCD	1	21	26/4/2023	6/5/23

MODULE 3

22	Syntax Analysis:	L+D	BB	1	22	2/5/2023	6/5/23
23	Syntax Analysis: Cont.	L+D	BB	1	23	3/5/2023	6/5/23
24	Introduction, Role Of Parsers,	L+D, PS	BB	1	24	3/5/2023	6/5/23
25	Role Of Parsers Cont.	L+I, PS	BB	1	25	6/5/2023	9/5/23
26	Introduction: Role Of Parsers Cont..	L+I	BB	1	26	8/5/2023	9/5/23
27	Context Free Grammars	L+D	BB	1	27	9/5/2023	23/5/23
28	Writing a grammar	L+D, PS	BB	1	28	10/5/2023	23/5/23
29	Top Down Parsers	L+I, PS	BB	1	29	10/5/2023	23/5/23
30	Bottom-Up Parsers	L+D, PS	BB	1	30	15/5/2023	23/5/23
31	Bottom-Up Parsers Cont.	L+I, PS	BB	1	31	16/5/2023	23/5/23
	Assignment 2: Written assignment	Offline	Assignment book	0	31	16/5/2023	23/5/23

MODULE 4

32	Lex and Yacc –The Simplest Lex Program,	L+D, PS	BB+LCD	1	32	17/5/2023	31/5/23
33	Grammars, Parser-Lexer Communication,	L+D	BB+LCD	1	33	17/5/2023	5/6/23
34	A YACC Parser, The Rules Section, Running LEX and YACC	L+D	BB+LCD	1	34	27/5/2023	6/6/23
35	LEX and Hand- Written Lexers	L+D	BB+LCD	1	35	29/5/2023	7/6/23
36	Using LEX - Regular Expression, Examples of Regular Expressions	L+D, PS	BB+LCD	1	36	30/5/2023	7/6/23
37	A Word Counting Program, Using YACC – Grammars, Recursive Rules	L+D, PS	BB+LCD	1	37	31/5/2023	7/6/23
38	Shift/Reduce Parsing,	L+D	BB+LCD	1	38	31/5/2023	7/6/23

39	What YACC Cannot Parse, A YACC Parser - The Definition Section, The Rules Section, The LEXER,	L+D, PS	BB+LCD	1	39	12/6/2023	12/6/23
40	Compiling and Running a Simple Parser	L+D	BB+LCD	1	40	13/6/2023	14/6/23
41	Arithmetic Expressions and Ambiguity.	L+D, PS	BB+LCD	1	41	14/06/2023	14/6/23
MODULE 5							
42	Syntax Directed Translation	L+D	BB	1	42	14/06/2023	14/6/23
43	Syntax Directed Translation cont..	L+D	BB	1	43	19/06/2023	16/6/23
44	Examples	L+D	BB	1	44	20/06/2023	19/6, 21/6/23
45	Intermediate code generation,	L+D, PS	BB	1	45	21/06/2023	21/6/23
46	Three address code	L+D, PS	BB	1	46	21/6/2023	21/6/23
47	Examples on Digraph	L+D, PS	BB	1	47	24/06/2023	21/6/23
48	Examples on Three address code	L+D, PS	BB	1	48	26/6/2023	24/6/23
49	Examples(contd)	L+D, PS	BB	1	49	27/6/2023	26/6, 27/6/23
50	Code generation	L+D, PS	BB+LCD	1	50	28/6/2023	27/6, 28/6/23
51	Code generation(contd)	L+D, PS	BB+LCD	1	50	28/6/2023	28/6, 28/6/23
	Assignment 3: Written assignment	Offline	Assignment book	0	50	28/6/2023	28/6/23
REVISION							
52	Revision	L+D	BB+LCD	0	51	10/7/2023	6/7/23

Total No. of Lecture Hours = 50

Total No. of Revision Hours = 01

Total classes = 51

<p>Assignment 1</p>	<p>Written assignment – Module 1 and Module 2</p> <ul style="list-style-type: none"> • Machine architecture of SIC • Machine architecture of SIC/XE • Object code generation • Language processing • Structure of compiler • Input buffering <p>Note: Students will be given set of questions and they have to write in assignment books.</p>	<p>10/04/2023</p>
<p>Assignment 2</p>	<p>Written assignment – Module 2 and Module 3</p> <ul style="list-style-type: none"> • Specification of tokens • Recognition of tokens • CFG • Top down parsers • Bottom up parsers <p>Note: Students will be given set of questions and they have to write in assignment books</p>	<p>17/05/2023</p>

<p>Assignment 3</p>	<p>Written assignment – Module 4 and Module 5.</p> <ul style="list-style-type: none"> • CFG • Top down parsers • Bottom up parsers • SDT • Intermediate code generation • Code generation <p>Note: Students will be given set of questions and they have to write in assignment books.</p>	<p>28/06/2023</p>
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Course In charge



Head of the Department



HOD

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15. June 2023

