

Syllabus Break up

Subject: Compiler Construction

Subject Code: 7CS5

Class: VII Sem.

Unit	Topics to be covered	Lectures Required	Month in which topic will be covered	Date of Completion	Reason of not completing the task	E-contents used
1	Introduction to the Compilers, Assemblers, Interpreters. Usage of all these components. Similarities and differences.	1	Aug. 2015	6 Aug.	NIL	NPTEL, Youtube, Dragon Book Pdf
	Types of compilers, Single pass and multi-pass compilers. Phases of compilers with example.	1	Aug. 2015	7 Aug.	NIL	NPTEL, Youtube, Dragon Book Pdf
	Review of finite automata. Lexical analysers. Tokenization.	2	Aug. 2015	8,13 Aug.	NIL	NPTEL, Youtube, Dragon Book Pdf
	Lexical analyser generator and error handling.	1	Aug. 2015	14 Aug.	NIL	NPTEL, Youtube, Dragon Book Pdf
	Bootstrapping. Examples of tokenization and lexical analysers. Grammar's layout and languages.	1	Aug. 2015	20 Aug.	NIL	NPTEL, Youtube, Dragon Book Pdf
2	Ambiguity and Unambiguity concepts. Parsing and it's block diagram.	1	Aug. 2015	21 Aug.	NIL	NPTEL, Youtube, Dragon Book Pdf
	Types of parsers. Bottom-up and Top- down parsers. Left recursion and left factoring concepts and their removal.	2	Aug. 2015	22,27 Aug.	NIL	NPTEL, Youtube, Dragon Book Pdf
	Effect of the removal of the left factoring and left recursion.	1	Aug. 2015	28 Aug.	NIL	NPTEL, Youtube, Dragon Book Pdf
	Top- down parsers. Types and requirements. Recursive decent parsers.	1	Aug. 2015	3 Sept	Guest Lecture	NPTEL, Youtube, Dragon Book Pdf
	Non-recursive decent parsers LL(1) Examples of non-recursive decent parsers and recursive parsers.	1	Aug. 2015	4 Sept.	Guest Lecture	NPTEL, Youtube, Dragon Book Pdf
	Bottom-up parsers. Classification chart of the bottom-up parsers. Requirements of the Operator Precedence parsers for the grammars.	2	Sept. 2015	17,18 Sept.	NIL	NPTEL, Youtube, Dragon Book Pdf
	Operator precedence parsing algorithm and the table construction. Examples.	1	Sept. 2015	19 Sept.	NIL	NPTEL, Youtube, Dragon Book Pdf

	SR parsers. LR(0) parsers, parsing algorithm and the table construction. Examples.	1	Sept. 2015	24 Sept.	NIL	NPTEL, Youtube,
	CLR(1) Parsers, parsing algorithm and the table construction. Examples.	1	Sept. 2015	26 Sept.	NIL	NPTEL, Youtube, Dragon Book Pdf
3	Introduction to SDT and need. Construction of SDT. L-attributed and S-attributed concepts.	1	Oct. 2015	1 Oct.	NIL	NPTEL, Youtube, Dragon Book Pdf
	Implementations of SDT. Type checking and translation examples.	1	Oct. 2015	3 Oct.	NIL	NPTEL, Youtube, Dragon Book Pdf
	Intermediate languages and code generation. Translation to the three address code.	1	Oct. 2015	8 Oct.	NIL	NPTEL, Youtube, Dragon Book Pdf
	Boolean expression and control structures. Examples of creation of SDT. Previous year's questions.	1	Oct. 2015	9 Oct.	NIL	NPTEL, Youtube, Dragon Book Pdf
4	Source language terminology, Procedures, activation tree and activation records.	1	Oct. 2015	10 Oct.	NIL	NPTEL, Youtube, Dragon Book Pdf
	Storage strategies, Storage allocations, Concepts of scope in a programme. Stack allocation schemes.	1	Oct. 2015	15 Oct.	NIL	NPTEL, Youtube, Dragon Book Pdf
	Parameter Passing Techniques. Symbol Table management. Data structures used for the symbol table.	2	Oct. 2015	16, 17 Oct.	NIL	NPTEL, Youtube, Dragon Book Pdf
5	Target code generation and issues. Block graphs and diagram. Control flow graph.	1	Oct. 2015	29 Oct.	NIL	NPTEL, Youtube, Dragon Book Pdf
	Registers and address descriptors. Introduction to DAG	1	Oct. 2015	30 Oct.	NIL	NPTEL, Youtube, Dragon Book Pdf
	DAG representations and control flow graphs. Code generations for DAG.	1	Nov. 2015	31 Oct	NIL	NPTEL, Youtube, Dragon Book Pdf
	Looping and its invariant, Sources of optimization.	1	Nov. 2015	5 Nov.	NIL	NPTEL, Youtube, Dragon Book Pdf
	Global and local data flow graphs, Definition Chains	1	Nov. 2015	6 Nov.	NIL	NPTEL, Youtube, Dragon Book Pdf
	Evaluation codes, Applications of DAG, Algorithm for constructing DAG	1	Nov. 2015	7 Nov.	NIL	NPTEL, Youtube, Dragon Book Pdf