Code No: **R31051** **R10** **Set No. 1**

III B.Tech I Semester Supplementary Examinations, October/November - 2016

COMPILER DESIGN

(Computer Science and Engineering)

Time: 3 hours **Max. Marks: 75**

Answer any FIVE Questions

All Questions carry equal marks

*****

1	a)	Differentiate between Loader and Linker.	[8M]
	b)	Write differences between single pass and two pass translation.	[7M]
2	a)	What does the following regular expression mean? (a/b)*abb. Construct NFA for the above regular expression and convert the constructed NFA to DFA.	[8M]
	b)	Write about Lexical errors and their handlers.	[7M]
3	a)	Construct predictive parsing table for the grammar S→iEtSeS/iEtS/a, E→b	[8M]
	b)	Explain in brief about the model of Non recursive predictive parser?	[7M]
4	a)	Consider the following grammar E→E + T/T,T→T*F/F,F→(E)/a Construct the SLR parse table.	[8M]
	b)	Find the moves made by the parser on the input string: a + a * a.	[7M]
5	a)	Construct LALR parsing table for the grammar E→E+T/T, T→T*F/F,F→(E)/id?	[7M]
	b)	Explain in brief about LR Parsers?	[8M]
6	a)	Consider the following grammar D→TL;T→int/float, L→L,id/id Write the Syntax Directed Definitions to add the type of each identifier to its entry in the symbol table during semantic analysis.	[7M]
	b)	Draw an annotated parse tree for the declaration: float id1, id2, id3; for the above grammar.	[8M]
7	a)	Construct Quadruples, Triples and Indirect Triples of the following expression: I = - J * (K + W).	[7M]
	b)	Distinguish machine dependent and machine independent optimization?	[8M]
8	a)	Explain the function preserving transformation techniques?	[7M]
	b)	Explain the DAG based local Optimization?	[8M]

*****