Code No: RT31051 **R13** SET - 1

III B. Tech I Semester Supplementary Examinations, May - 2017

COMPILER DESIGN

(Computer Science and Engineering)

Time: 3 hours Max. Marks: 70

Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)
2. Answering the question in **Part-A** is compulsory
3. Answer any **THREE** Questions from **Part-B**

~~~~~~

PART –A

1	a)	Explain in brief about closure properties of Regular sets.	[3M]
	b)	Explain in brief about Left most and Right most derivations.	[4M]
	c)	Draw the model of an LR parser.	[3M]
	d)	What is left factoring? Give example.	[4M]
	e)	What is an activation record? Explain how it is related with run time storage organization?	[4M]
	f)	Describe how addressing modes can be used for reducing the memory access time?	[4M]

PART -B

2	a)	Discuss in brief about the Role of Lexical analyser in a compiler.	[4M]
	b)	Explain in brief about Lexical errors.	[8M]
	c)	Discuss in brief about Reserved words and identifiers.	[4M]
3	a)	Discuss in brief about Left Recursion.	[3M]
	b)	Construct predictive parsing table for the grammar E→E+T/T, T→T*F/F, F→(E)/id.	[8M]
	c)	Construct Right most derivation for the grammar E→E+T/T, T→T*F/F, F→(E)/id for w= id+id*id .	[5M]
4	a)	Differentiate between Top down and Bottom up Parsing methods.	[8M]
	b)	Construct CLR parser for the grammar S→L=R,S→R,L→*R,R→L.	[8M]
5	a)	Describe about type expressions.	[8M]
	b)	Explain in brief about Synthesized and Inherited Attributes.	[8M]
6	a)	Define Symbol table. Explain about the data structures for Symbol table.	[8M]
	b)	Explain reducible and non reducible flow graphs with examples.	[8M]
7	a)	Explain in detail about Loop Optimization.	[8M]
	b)	Explain in brief about Peephole optimization techniques.	[8M]

*****
~~~~~~