SVKM's NMIMS

MUKESH PATEL SCHOOL OF TECHNOLOGY MANAGEMENT & ENGINEERING

Programme: B. Tech (Computer)   Year: III   Trimester: IX
Batch :   **2012-13**

Academic Year: 2013-2014

Subject :   **Principles of Compiler Design**

Date :   12/07/2014

Marks: 100
Time: 11.00 am to 2.00 pm
Durations: 3 (hrs)

Re-Examination

N.B.

1. **Q1 is compulsory**
2. **Solve any 4 from remaining question**
3. **In all 5 question has to be attempted**

		MARKS
Q1	a) Explain various errors detected by each phase of compiler	05
	b) Explain cross compiler with example.	05
	c) Compare static, stack and heap allocation.	10
Q2	a) What are the various phases of compiler .Explain	10
	b) What is regular expression .Give regular expression which denotes all string whose length is not two. Draw NFA for same	10
Q3	a) Explain recursive decent parser with suitable example	10
	b) Construct LALR(1) parser table for the grammar SiCtS|CtSeS|a C->b Check if there are any conflicting entries or not.	10
Q4	a) Draw syntax tree and DAG for the expression (p*q) + (r-s)*(p*q) + q	10
	b) Explain various strategies to recover from Syntactical errors	10
Q5	a) Explain run time storage organization in detail.	10
	b) What are various problem in top down parsing technique	10
Q6	a) Explain various form of intermediate code use by compiler.	10
	b) Discuss loop optimization technique with the help of suitable example	10

Q7	Write short note (any four)
	  A. Code optimization
	  B. YACC
	  C. Java compiler and environment
	  D. Lexical analyzer
	  E. Recursive decent parser
		20