

SVKM's NMIMS
MUKESH PATEL SCHOOL OF TECHNOLOGY MANAGEMENT & ENGINEERING

Programme: B. Tech (COMP)
Batch: 2011-12, 2012-13

Year: III

Trimester: IX

Academic Year: 2014-2015

Subject: **Principles of Compiler Design**

Date: 24/03/2015

Marks: 100
Time: 2.00 pm to 5.00 pm
Duration: 3 (hrs)



Re-Examination

Instruction: Candidates should read carefully the instructions printed on the question paper and on the cover of the Answer Book, which is provided for their use.

NB:

- 1) Question No.1 is compulsory.
- 2) Out of remaining questions, attempt any 4 questions.
- 3) In all 5 questions to be attempted.
- 4) All questions carry equal marks.
- 5) Answer to each new question to be started on a fresh page.
- 6) Figures to the right hand side indicate full marks.
- 7) Assume suitable data wherever necessary.

- | | | |
|---|---|----|
| 1 | a) Compare bottom up and top down parsing. | 10 |
| | b) Describe symbol table organization. | 10 |
| 2 | a) Describe the role of lexical analyzer in compiler design. | 10 |
| | b) Explain LALR parser. | 10 |
| 3 | a) Explain Pushdown machine with example. | 10 |
| | b) Explain Peephole optimization. | 10 |
| 4 | a) Explain the different issues in the design of code generator. | 10 |
| | b) What is three address code? Explain different three address code representations with example. | 10 |
| 5 | a) Describe recursive descent parser. | 10 |
| | b) Explain run time storage management. | 10 |
| 6 | a) Explain operator precedence parser with example. | 10 |
| | b) How the function/procedure calls are handled in compiler design? Explain. | 10 |
| 7 | a) Explain different phases of compiler in detail. | 10 |
| | b) Explain parameter passing in detail. | 10 |

x ————— x