Roll No

MCADD-704 (2)

M.C.A. (Integrated)VII Semester

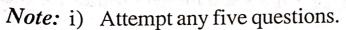
Examination, November 2019

Compiler Design

(Elective - I)

Time: Three Hours

Maximum Marks: 70



- ii) All questions carry equal marks.
- 1. a) Discuss various phases of a Compiler.
 - b) What is Interpreter? Explain.
- 2. a) Explain Boot strapping.
 - b) Why multiple parser are required by a compiler? Describe the strategies for reducing number of parser.
- 3. a) Differentiate between top down and bottom up parsing.



- b) Discuss the tools for chemical analyzer.
- 4. a) Construct the LR (0) parsing table for the grammar
 - i) $S' \rightarrow Sp$
 - ii) $S \rightarrow (L)$
 - iii) $S \rightarrow x$
 - iv) $L \rightarrow S$
 - V) $L \rightarrow L, S$
 - b) What do you understand by LR (K) grammar.

- 5. a) Explain machine dependent and machine independent optimization.
 - b) How code is generated from DAG's?
- 6. Compare relative merits and demerits of the following
 - a) Quadruples
 - b) Triples
 - c) Indirect triples

And write the quadruples, triples and indirect triples for the expression

$$-(a+b)+(c+d)-(a+b+c+d)$$

- 7. a) What is operator precedence parsing? What are its limitations?
 - b) Explain various steps for constructing SLR parsing tables.
- 8. Write short notes on any three
 - a) Back patching
 - b) Automatic parser generation
 - c) LEX
 - d) Semantic error
 - e) Loop optimization

