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Master of Computer Applications, Semester - IV

Model Questions

Subject - Compiler Design

Paper - 23

1. What is a Compiler? Explain different phases of a compilation process.

2. What is Bootstrapping? Explain with the help of T- Diagram.

3. Given the Grammar :

   exp → exp addop term | term

   addop → + | -

   term → term mulop factor |factor

   mulop → *

   factor → (exp) |number

   number → 1|2|3|4|5|6|7|8|9

   Write down the rightmost derivations, parse tree and abstract syntax tree for the following expressions:

   a) 3 + 4 * 5 - 6

   b) 3* (4 – 5 + 6)

4. What is Symbol table? Explain different data structures used for implementing Symbol table.

5. Explain LL (1) parsing algorithm with the help of suitable example.

6. What is parameter passing? Explain different mechanism of parameter passing.

7. What do you understand by run-time environment? Explain different storage allocation techniques.

8. What is bottom-up parsing? Explain general LR parsing algorithm.

9. a) Explain attribute and attribute grammar.

   b) What do you mean by intermediate code representation? Explain different ways to represent intermediate code.

10. Write short notes on :
   a) YACC
   b) EBNF
   c) Role of a parser