QP Code : 580802

(3 Hours)   [Total Marks :100

N.B. : (1) Question No. **1** Compulsory.
    (2) Attempt any **four** questions out of remaining **six** questions.
    (3) **Figures** to the **right** indicate **full** marks
    (4) **Assume** suitable data **if** necessary

1. (a) Explain with flow charts working of Two pass assembler, with database used.   10
   (b) Explain the working of single pass Microprocessor.   10

2. (a) Explain compile and go loader with advantages and disadvantages.   10
   (b) Explain various phases of compiler with example.   10

3. (a) Differentiate between Top-down and bottom up parsing. Explain with examples   10
   (b) Construct predictive parsing table for following grammer.   10
       $S \to A$
       $A \to aB \mid Ad$
       $B \to bBC \mid f$
       $c \to g$

4. (a) What is code optimization? Explain various strategies for code optimization.   10
   (b) Explain Run time storage organization in detail.   10

5. (a) Translate the expression (a+b)*(c+d)+(a+b+c) into   10
     (i) Quadruple
     (ii) Triples
     (iii) Indirect triples
   (b) Explain different types of text editors   10

6. (a) Explain JAVA compiler environment.   10
   (b) Construct NFA for following expression and convert NFA into DFA   10
      for the regular expression (0+1)* 01

7. Write notes on any two:-   20
     (a) LEX and Y ACC
     (b) Operator precedence parsing
     (c) Macro assemblers.

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