Q.P.Code:11585

May - 17

(3 Hours) **Total Marks: 80**

N.B.: (1) Question No. 1 is compulsory.
(2) Attempt any three questions out of remaining five questions.

Q1. (a) What is system software & application software? (05)
(b) Explain different types of text editor. (05)
(c) Explain left recursion with an example (05)
(d) Write a note on: Input buffering scheme of lexical analyser. (05)

Q2. (a) With reference to assembler, explain the following tables with suitable example. (10)
(i) POT (ii) MOT (iii) ST (iv) LT
(b) Explain the different code optimization techniques in compiler design. (10)

Q3. (a) Draw flowchart and explain with databases the working pass 1 of macro processor. (10)
(b) Explain various functions of loader. Also explain the design and flowchart of Absolute loader. (10)

Q4. (a) Compare LR(0),LR(1) and LALR parser. (10)
Construct LR(0) parser table for following grammer:-
S-> (L) |id
L-> S|L,S
Variables: S and L
Terminals: (id ,)

(b) Explain different ways to represent three address code. (10)

Q5. (a) Explain run time storage organization in detail. (10)
(b) Explain the different phases of compiler. Illustrate the output after each phase for the following statement: (10)
a = b + c-d*5

Q6. (a) Differentiate Top-down and Bottom-up parsing techniques. Explain recursive descent parser with an example. (10)

(b) Write short note on: (10)
(i) Basic block and flow graph
(ii) JAVA compiler environment.

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