4/7/2015

615

Exam.Code:0918
Sub. Code: 6795

2062

B.E. (Computer Science and Engineering)

Sixth Semester

CS-604: Complier Design

Time allowed: 3 Hours

Max. Marks: 50

NOTE: *Attempt five questions in all, including Question No. I which is compulsory and selecting two questions from each Section.*

x-x-x

1. Attempt the following:- (5x2)

   (a) What is the difference between a phase and a pass?

   (b) What is a look ahead operator and how it helps in loop identification?

   (c) How is token recognition done?

   (d) What are storage allocation strategies?

   (e) What issues arise while designing a code generator?

SECTION – A

2. (a) Draw and Explain the phases of a compiler in detail. [5]

   (b) Explain implementation of lexical analyzer. [5]

3. (a) Explain the code generation and error handling phase of a compiler. [5]

   (b) What is a symbol table? Explain its significance alongwith its contents and data structure. [5]

4. (a) Explain the role of parser in detail. [5]

   (b) Explain shift – reduce parsing with the help of an example. [5]

SECTION – B

5. (a) Explain synthesized and inherited attributes with the help of examples. [4]

   (b) Explain the implementation of syntax directed translation with the help of an example. [6]

6. (a) Explain activation trees and Activation records. [4]

   (b) Convert the following statement into quadruple, triple and indirect triple statement:

   A = -B * (C + D) [6]

7. Write short notes on the following:

   (a) Flow Graphs [3]

   (b) Peephole Optimization [3]

   (c) Loop Unrolling and Loop Jamming [4]

x-x-x