SEAT No. :

[Total No. of Pages : 2

BE/Insem/APR - 248
B.E. (Computer Engineering)
COMPILERS
(2015 Pattern) (Semester - II) (Elective - III)

Time : 1 Hour]   *[Max. Marks : 30*

Instructions to the candidates :

1) *Attempt Q1 or Q2, Q3 or Q4, Q5 or Q6.*
2) *Neat diagrams must be drawn wherever necessary.*
3) *Assume suitable data if necessary.*

Q1) a) Briefly describe role of Lexical Analyser with diagram. **[4]**

b) What are data structures used for symbol table? **[4]**

c) Define Token, Pattern and Lexeme with example. **[2]**

OR

Q2) a) Write Regular Expression for identifier declaration, String Literal, Comments, Floating point no, White space for C language. **[4]**

b) Explain Front end and Back end of compiler with suitable example. **[4]**

c) Discuss the various garbage collection techniques. **[2]**

Q3) a) Construct a SLR(1) parsing table for the following grammar : **[6]**
$S \rightarrow 0S0 \mid 1S1 \mid 10$

b) Explain Automatic construction of Parser using YACC. **[4]**

OR

Q4) a) Construct Predictive parser for following grammar. And parse the string "acdb" [6]

S→aABb

A→c|∈

B→d|∈

b) Explain what is Elimination of Left recursion and Left factoring in predictive parsing. [4]

Q5) a) Write form of Syntax Directed Definition and Syntax Directed Translation. [4]

b) Generate Three Address code, quadruple, Triple, Indirect Triple form for following example. [6]

a = b + c *d

OR

Q6) a) Explain S-attribute and L-attribute with example. [4]

b) Give SDD for if-else, if-else-then and while-do statement. [6]

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