B-Tech-sem-VII, (2014 course), I.T. winter-2018

B.Tech. SEM -VII Info. Tech. 2014 Course (CBCS) : WINTER - 2018

SUBJECT: COMPILER CONSTRUCTION AND DESIGN

Day: Friday
Date: 23/11/2018

W-2018-2562

Time: 02.30 PM TO 05.30 PM
Max Marks: 60

N.B.:

1) All questions are **COMPULSORY**.
2) Figures to the right indicate **FULL** marks.
3) Assume suitable data if necessary.
4) Use of nonprogrammable **CALCULATOR** is allowed.

Q.1 Explain the term LEX and discuss how LEX is helpful for construction of lexical analyzer. **(10)**

OR

Q.1 Write down various specification and recognition of tokens in lexical analysis. **(10)**

Q.2 Write a short note on following terms (ANY TWO) **(10)**

i) SLR parsing table
ii) LR parsing table
iii) LALR parsing table

OR

Q.2 Define the term YACC and discuss necessity and importance of symbol table in syntax analysis. **(10)**

Q.3 How space allocation is done in complile time? Explain with suitable example. **(10)**

OR

Q.3 Explain type checking and type conversion concept with suitable data. **(10)**

Q.4 Define the term Backpatching and Procedure Call in terms of Intermediate code generation **(10)**

OR

Q.4 Discuss the parameter passing mechanism with respect to run time environment. **(10)**

Q.5 Explain the process of DAG representation of Basic blocks with suitable example. **(10)**

OR

Q.5 Specify code generation algorithm along with its pros and cons. **(10)**

Q.6 During code optimization phase, what source and target language issues are faced? How to deal with them? **(10)**

OR

Q.6 Write a short note on (ANY TWO) **(10)**

a) FOSS
b) GCC
c) JIT

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