Total No. of Pages :2

Seat No.	

T.E.(CSE) (Part - II) (Semester - VI) (Revised) Examination, November - 2019
COMPILER CONSTRUCTION
Sub. Code :66858

Day and Date :wednesday , 13-11-2019
Time : 9.30 a.m.to 11.30 a.m.

Total Marks :50

Instructions :
1) **All questions are compulsory**
2) **Figures to the right indicate full marks.**

SECTION - I

Q1) a) List and explain various error recovery strategies in Syntax analysis. **[6]**

OR

a) List and describe different compiler construction tools. **[6]**

b) How to recognize the tokens. **[4]**

Q2) a) Construct the LR (1) parsing table for the follwoing grammar **[6]**

$S \rightarrow CC$

$C \rightarrow cC$

$C \rightarrow d$

OR

a) What are the features of LR Parser. Write the algorithm for LR parsing. **[6]**

b) $S \rightarrow i\ E\ t\ S \mid i\ E\ t\ SeS \mid a$

$E \rightarrow b$

Is the grammar ambiguous? If yes then remove the ambiguity. **[4]**

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Q3) Explain the role of lexical analyzer with appropriate block diagram. **[5]**

SECTION - II

Q4) a) What are inherited attributes? Explain with example .**[6]**

OR

a) Define Dependency Graph. Describe methods for evaluating the semantic rules. **[6]**

b) Explain Peephole code optimization technique and its characteristics.**[4]**

Q5) a) What are the rules for writing the Semantic actions in an SDT when we have both inherited and synthesized attributes. Explain how to convert SDD into SDT with the help of an example. **[6]**

OR

a) Write and explain SDD for generating syntax tree for an expression. **[6]**

b) Explain various transformations on Basic Blocks. **[4]**

Q6) Draw syntax tree and DAG for the expression and also write the intermediate code in three address code format. **[5]**

a+a*(b-c) + (b-c)*d

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