SE - 205

Seat No.	

Total No. of Pages : 2

T.E. (CSE) (Part - II) (Semester - VI) Examination, November- 2018
COMPILER CONSTRUCTION (Revised)
Sub. Code : 66858

Day and Date : Monday, 12 - 11 - 2018 **Total Marks : 50**

Time : 2.30 p.m. to 04.30 p.m.

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

SECTION - I

Q1) a) List and describe different Cousins of Compiler. [4]

OR

Write a note on grouping of phases and passes.

b) Explain input buffering in Lexical Analysis. [6]

Q2) a) Explain the Role of Lexical analyzer. [6]

OR

What is operator precedence grammar? Write algorithm for operator precedence parsing.

b) $S \rightarrow iEtS|iEtSeS|a$

$E \rightarrow b$

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

Q3) Construct the LR (1) parsing table for the following grammar: [5]

$S \rightarrow CC$

$C \rightarrow cC$

$C \rightarrow d$

P.T.O.

SECTION - II

Q4) a) Explain with example: [6]

i) Inherited attributes:

ii) Synthesized attributes.

OR

Define Dependency Graph. Describe methods for evaluating the semantic rules.

b) What are the principle sources of code optimization? [4]

Q5) a) Write the code generation algorithm and working of the function getreg. [6]

OR

With respect to generating code from DAGs explain node listing algorithm and Labeling algorithm.

b) What are the criteria for code improving transformations? [4]

Q6) What are register and address descriptors. Generate target code sequence for following three address code along with register and address descriptor details. [5]

t=a+b

u=a–c

v=t+u

d=v+u

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