

SV - 201

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Seat No.	
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T.E. (C.S.E.) (Part - II) (Semester - VI) (Revised)

Examination, May - 2018

COMPILER CONSTRUCTION

Sub. Code : 66858

Day and Date : Thursday, 03 - 05 - 2018

Total Marks : 50

Time : 2.30 p.m. to 4.30 p.m.

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

SECTION - I

- Q1) a) Construct finite automata that will accept strings having the substring 101 where the Language is defined on $\{0, 1\}$. [4]

OR

Construct finite automata accepting the set of all strings ending with 101 where the Language is defined on $\{0, 1\}$.

- b) Enumerate and describe the different compiler construction tools. [6]

- Q2) a) Compute the FIRST and FOLLOW sets for the grammar give below. [6]

$E \rightarrow TE'$

$E' \rightarrow +TE' \mid \wedge$

$T \rightarrow FT'$

$T' \rightarrow *FT' \mid \wedge$

$F \rightarrow (E) \mid id$

OR

Explain different error-recovery techniques used in syntax analysis.

- b) What is bottom up parsing? Explain the shift-reduce bottom-up parsing algorithm. [4]

- Q3) Explain Input Buffering used in Lexical Analysis.

[5]

P.T.O.

SECTION - II

- Q4) a) With respect to Intermediate code generation explain different forms of intermediate code languages. [6]

OR

What are L attributed definitions? Explain with the help of an example.

- b) How are array indexing instructions represented by DAGs? Explain with the help of example. [4]

- Q5) a) Write a short note on flow graph representation of basic blocks. [6]

OR

What is peephole optimization? Describe different characteristics of peephole Optimization.

- b) Discuss different issues in design of code generator. [4]

- Q6) What is a basic block? Describe an algorithm to partition a three address sequences into basic blocks. [5]
