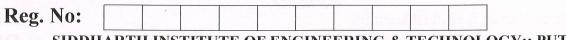
Q.P.	Code:	18CS0	514
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## SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR

## (AUTONOMOUS)

B.Tech III Year II Semester Supplementary Examinations February-2022 COMPILER DESIGN

(Computer Science & Information Technology)

Time:	3 hours	Max. Marks: 60
	PART-A	
	(Answer all the Questions $5 \times 2 = 10$ Marks)	
1	a Define the Role of Lexical Analyzer.	<b>2M</b>
	<b>b</b> Define Ambiguous grammar.	<b>2M</b>
	<b>c</b> What is bottom-up parsing?	<b>2M</b>
	d Describe scope and lifetime of variable.	<b>2M</b>
	e Give the applications of DAG.	<b>2M</b>
	PART-B	
	(Answer all Five Units $5 \ge 10 = 50$ Marks)	
	UNIT-I	
2	Explain the phases of a compiler with neat diagram.	<b>10M</b>
	OR	
3	Discuss the following terms	
	a Specification of Tokens	5M
	<b>b</b> Recognition of Tokens	5M
	UNIT-II	
4	a Eliminate left recursion for the following grammar	5M
	i) $E \rightarrow E + T/T$ ii) $S \rightarrow Aa/b$	
	ii) T-> T*F/F $B$ ->Bad/c	
	iii) $F \rightarrow (E)/id$ C->Cde/f	
	<b>b</b> Explain about Left factoring with simple example?	5M
	OR	
5	Consider the grammar	<b>10M</b>
	S->AB ABad	
	A->d	
	E ->b	
	D->b  ε	
	B->c Construct the predictive parse table and check whether the given gramma	ar is
	LL(1) or not.	
	UNIT-III	
6	Construct CLR Parsing table for the given grammar	<b>10M</b>
	S->CC	
	C->aC/d	

## OR

7 Explain the Translation scheme of SDD.

**10M** 

**R18** 

Q.P. 0	Code: 18CS0514	<b>R18</b>
	UNIT-IV	
8	a Discuss about symbol table entries.	5M
	<b>b</b> Write about operations on symbol table.	5 <b>M</b>
	OR	
9	Explain Representation of Three Address Codes with suitable Examples.	<b>10M</b>
	UNIT-V	
10	a Discuss the various strategies in register allocation.	5M
	<b>b</b> Write about loop optimization techniques.	5M
	OR	
11	Write short notes on	
	a Simple code generator	5M
	<b>b</b> Register allocation and assignment	5 <b>M</b>

\*\*\*END\*\*\*