Reg. No:

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech III Year II Semester Supplementary Examinations Dec-2019
COMPILER DESIGN
(COMPUTER SCIENCE & ENGINEERING)

Time: 3 hours   Max. Marks: 60

(Answer all Five Units **5 x 12 = 60** Marks)

UNIT-I

1	a	Explain the specifications of tokens.	6M
	b	Explain the Recognition of tokens.	6M

OR

2	a	Differentiate between compiler and interpreter.	6M
	b	Explain about Parts of compiler.	6M

UNIT-II

3	a	Perform Shift Reduce Parsing for the following Grammar: E-> E+E|E*E|(E)|id input string: (id*id+id).	6M
	b	S->(L)|a L->L,S|S input string: (a,(a,a)).	6M

OR

4	a	Write short notes on Recursive descent parsing with backtracking.	4M
	b	Explain about Left most derivation, right most derivation with examples.	8M

UNIT-III

5	a	Discuss about applications of the Syntax Directed Definition.	5M
	b	Explain The Applications of SDT.	7M

OR

6	a.	Define a syntax-directed translation.	12M
	b.	Define annotated parse tree.	
	c.	What are the three functions of back patching?	
	d.	Write the Syntax of case statement.	

UNIT-IV

7	a	Discuss about the memory hierarchy of a Computer.	4M
	b	Define Symbol table. Explain different types of Data structure for symbol table.	8M

OR

8	a	Explain about memory management.	5M
	b	Draw the format of Activation Record in stack allocation and explain each field in it.	7M

UNIT-V

9	Define DAG? And Construct the DAG for the following Three address code S1:= 4 * i ,S2:= a[S1] ,S3:= 4 * I, S4:= b[S3], S5:= s2 * S4 ,S6:= prod + S5 Prod:= s6 , S7:= i+1 i := S7 **if** i<= 20 **goto** (1).	12M

OR

10	a	Explain the target machine architecture.	7M
	b	Simple code generator.	5M

*** END ***