R19

Reg. No:

Time: 3 hours   Max. Marks: 60

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

UNIT-I

1	Explain the phases of a compiler with neat diagram?	L2	12M

OR

2	a	Write in detail about the Structure of Compiler.	L3	6M
	b	Summarize Compiler construction Tools.	L5	6M

UNIT-II

3	a	Illustrate the rules to be followed in finding the FIRST and FOLLOW.	L2	6M
	b	Calculate FIRST and FOLLOW for the following grammar	L3	6M
		$E \rightarrow E+T/T$ $T \rightarrow T*F/F$ $F \rightarrow (E)/id$		

OR

4	a	List the types of Parsers available in compiler Design.	L1	6M
	b	Explain Error recovery in predictive Parsing.	L3	6M

UNIT-III

5	a	Describe what is bottom up parsing.	L1	4M
	b	Write the differences between SLR,CLR, LALR parsers.	L4	8M

OR

6	Construct the LALR parser for the following Grammar? $S \rightarrow AA$, $A \rightarrow aA/b$	L6	12M

UNIT-IV

7	Define Symbol table. Explain different types of Data structure for symbol table.	L1	12M

OR

8	a	Write properties of memory management.	L3	4M
	b	Discuss Storage allocation strategies with suitable examples.	L2	8M

UNIT-V

9	a	Construct the DAG for following statement.	L6	8M
		a+b*c+d+b*c		
	b	Analyze the different forms in target program.	L4	4M

OR

10	a	Discuss the various strategies in register allocation.	L2	6M
	b	Describe about loop optimization techniques.	L2	6M

*** END ***