



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)

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Continuous Assessment Exam II (April 2022)

Program : B.E	Max. Marks : 30
Course : Compiler Design	Time : 1 Hour
Course code : SCSA1604	Sem : VI
Batch : 2019-23	Date : 07-04-2022

Part-A Answer ALL the questions (5×2=10)

Q.No	Questions	CO (L)
1.	Generate the three address code for the statement, If A<B then 1 else 0	CO3(5)
2.	Construct an annotated parse tree for the expression 1+2+3	CO3(5)
3.	List out the uses of a symbol table.	CO3(1)
4.	Construct the DAG for the following three address statements, T1:=A+B T2:=C+D T3:=E-T2 T4:=T1-T3	CO4(5)
5.	List out the properties of dominators.	CO4(1)

Part-B Answer ALL the questions (2×10=20)

Q.No	Questions	CO (L)
6.	Discuss the various types of intermediate code generation with suitable examples.	CO3(3)
(OR)		
7.	Develop the Syntax Directed Translation for the assignment statement. Given, A → id:=E E → E+E E*E (E) -E id	CO3(6)
8.	(i) For the flow graph, perform global data flow analysis.	CO4(6)

	<p>(ii) Write the algorithm to compute IN and OUT</p>	
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(OR)

9.	<p>Employ the dominator computing algorithm and formulate the dominator list for each node in the following flow graph,</p>	CO4(5)
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