



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)

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Continuous Assessment Exam 1 (February 2022)

Program : B.E	Max. Marks : 30
Course : Compiler Design	Time : 1 Hour
Course code : SCSA1604	Sem : VI
Batch : 2019-23	Date : 03-02-2022

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

Q.No	Questions	CO (L)
1.	State the use of input buffer in Lexical phase of a compiler.	CO1(1)
2.	Define Handle and handle pruning.	CO1(1)
3.	With appropriate examples, explain shift-reduce and reduce-reduce conflicts.	CO2(2)
4.	Differentiate between ambiguous and unambiguous grammar.	CO2(3)
5.	Construct the LR(0) items for the following grammar. S->AS b A->SA a	CO2(4)

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

Q.No	Questions	CO (L)
6.	Construct a minimized DFA for the regular expression $((\epsilon a)b^*)^*$	CO1(5)

(OR)

7.	Briefly explain the various phases of a compiler with suitable examples.	CO1(2)
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8.	Construct a predictive parsing table for the following grammar S-> (L) a L-> L,S S Also parse the string ((a,a),a)	CO2(5)
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(OR)

9.	Consider the following grammar: S->a ^(T) T->T,S S (i) Compute the leading and trailing for the above grammar.	CO2(5)
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	(ii) Compute the operator –precedence relation table for this grammar and parse the string (a,^(a))	
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