Register Number | 1 | 9 | 5 | 0 | 0 | 1 | 0 | 7 | 6 |

Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam – 603 110

(An Autonomous Institution, Affiliated to Anna University, Chennai)

Department of Computer Science and Engineering

Continuous Assessment Test – II

Question Paper

Degree & Branch	**BE (CSE)**				**Semester**	VI
Subject Code & Name	**UCS1602 – Compiler Design**				**Regulation:**	2018
Academic Year	2021-2022	**Batch**	2019-2023	**Date**	**10-05-2022**	FN
Time: 90 Minutes **8.30 – 10.00 am**	**Answer All Questions**				**Maximum: 50 Marks**	

Part – A (6×2 = 12 Marks)

<KL1>	What is LR(k) parser?	<CO2>
<KL1>	How precedence and associativity are handled by YACC compiler?	<CO2>
<KL2>	Explain handle pruning with suitable example.	<CO2>
<KL2>	Show FIRST & FOLLOW for the grammar. S → ABBA A → a | ε B → b | ε	<CO2>
<KL1>	What is rule for finding closure{I}, where I is the set of items ?	<CO2>
<KL2>	Explain the structure of LR parsing table.	<CO2>

Part – B (3×6 = 18 Marks)

<KL3>	7. Consider the grammar G for declaration statements. G: S → TL; T → int | float L → L,id | id Develop a Syntax checker to recognize the following statements by writing suitable LEX & YACC specifications. int a,b,c; char e,f; float h	<CO2>
<KL2>	8. Explain error recovery in predictive parsing with suitable examples.	<CO2>
<KL2>	9. Write the LR parsing algorithm.	<CO2>

Part – C (2×10 = 20 Marks)

<KL3>	10. Construct CLR parsing table for the grammar. E → E + T | T T→ TF | F F → F* | a | b	<CO2>
	(OR)	
<KL3>	11. Construct LALR parser for the grammar and show that the grammar is not LALR(1). S → Aa |bAc |Bc |bBa A → d B → d	<CO2>
<KL3>	12. Construct Predictive parsing table for the given grammar and parse the sentence ***(a,a)*** S → a | ↑ | (T) T → T , S | S	<CO2>
	(OR)	
<KL3>	13. Construct SLR parser for the grammar G. Parse the string ***int id,id*** G: S → TL; T → int | float L → L,id | id	<CO2>
