EXPERIMENT NO. 5

AIM: To implement different types of Parsers for the given grammar.

POSTLAB ASSIGNMENT:

Q1. In operator precedence parsing, precedence relations are defined

A. For all pair of non terminals
B. For all pair of terminals
C. To delimit the handle
D.Only for a certain pair of terminals

Answer : B. For all pair of terminals

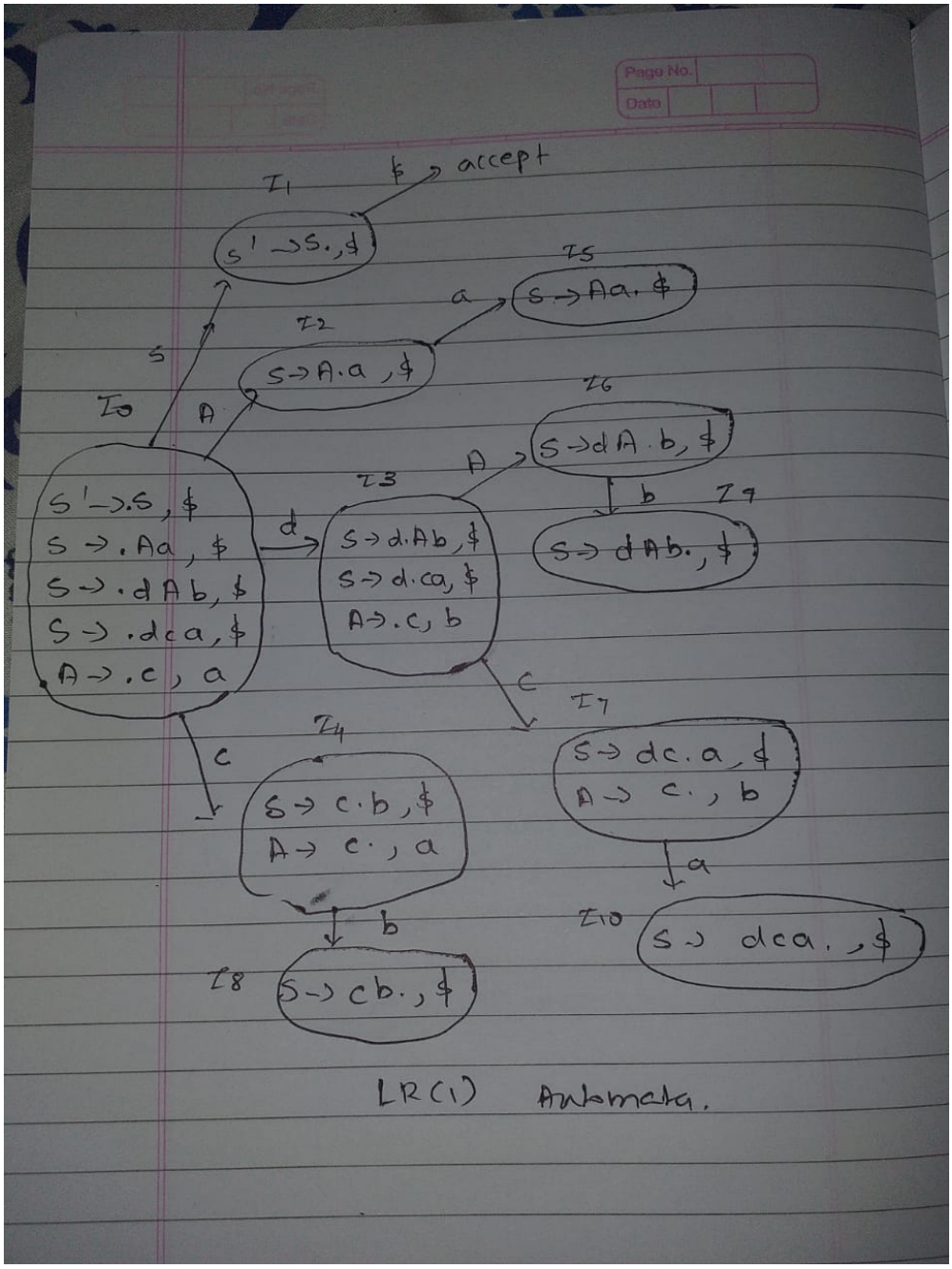
Q2. Construct LR(1) parser table for the following grammar:

S -> Aa / dAb / dca / cb
A -> c

Answer :

Augmented Grammar -

S' -> S
S -> Aa ..(1)
S -> dAb ..(2)
S -> dca ..(3)
S -> cb ..(4)
A -> c ..(5)



CLR Parser Table:

State	ACTION					GOTO	
	a	b	c	d	$	S	A
0			S4	S3		1	2
1					accept		
2	S5						
3			S7				6
4	R5	S8					
5					R1		
6		S9					
7	S10	R5					
8					R4		
9					R2		
10					R3		

CONCLUSION:

In this experiment, I created the LL(1) parsing table for the input grammar. Subsequently, the parsing algorithm was applied to parse a given input string. Using a similar approach, the LR parsing tables can also be prepared and parsed using their specific algorithm.