Ques-8. Parse a string aadd through LR(1) parsing table.

Stack	Input buffer	Action table	GOTO Table	Parsing action
$0	aadd$	action[0,a]=s3		
$0a3	add$	action[3,a]=s3		shift
$0a3a3	dd$	action[3,d]=s4		shift
$0a3a3d4	d$	action[4,d]=r3	[3,C]=8	Reduce by C→d
$0a3a3C8	d$	action[8,d]=r2	[3,C]=8	Reduce by C→aC
$0a3C8	d$	action[8,d]=r2	[0,C]=2	Reduce by C→aC
$0C2	d$	action[2,d]=s7		shift
$0C2d7	$	action[7,$]=r3	[2,C]=5	Reduce by C→d
$0C2C5	$	action[5,$]=r1	[0,S]=1	Reduce by S→CC
$0S1	$	action[1,$]= Accept		

→ Thus the given input string is successfully parsed using LR(1) parsing table.

→ In parsing a string when action $[I_i, a] = S_i$ then shift the symbol one from input buffer

→ In parsing a string when action $[I_i, a] = r_j$ then reduce by production(j), now when reduction done by production j then pop the double number of symbols present in right hand side of production j from the stack.

ie, if Reduce by C→d then pop 2 symbols from stack.

if reduce by C→aC or S→CC then pop 4 symbol from stack & fill GOTO entry in table.

when action $[I_i, \$]$ = Accept then it is indicate successful parsing of string.