

## ANKARA UNIVERSITY

Computer Engineering

COM241 Programming Languages

Lab. Assignment 4-5-6

Due Data: 16 December 2016

### About this assignment

This document provides you with the details of your lab assignment for the COM241

This is an individual assignment. However, you are encouraged to discuss the technical approaches with other students.

### Description of this project

The task is to obtain to implement the sift-reduce algorithm within the given grammar and the table shown below with C programming language .

1.  $E \rightarrow E "+" T$
2.  $E \rightarrow T$
3.  $T \rightarrow T "*" F$
4.  $T \rightarrow F$
5.  $F \rightarrow "(" E ")"$
6.  $F \rightarrow id$

State	Action						Goto		
	Id	+	*	(	)	\$	E	T	F
0	s5			s4			1	2	3
1		s6				acc	1		
2		r2	s7		r2	r2			
3		r4	r4		r4	r4			
4	s5			s4			8	2	3
5		r6	r6		r6	r6			
6	s5			s4				9	3
7	s5			s4					10
8		s6			s11				
9		r1	s7		r1	r1			
10		r3	r3		r3	r3			
11		r5	r5		r5	r5			

Your program should clearly write the contents of the parse stack, status of the input string, and the action carried out at each step

An example input: **id \* (id + id).**