

CS6109 - COMPILER DESIGN – LAB

Week 13 – 13.12.2022

(Spot Questions)

1. Generate the Quadruple and Triple TAC for the given expression.

s. No.	Input	Output							
		Quadruple				Triple			
1.	a = b * -c + b * -c	op	arg1	arg2	result	op	arg1	arg2	
		uminus	c		t1	(0)	uminus	c	
		*	b	t1	t2	(1)	*	b	(0)
		uminus	c		t3	(2)	uminus	c	
		*	b	t3	t4	(3)	*	b	(2)
		+	t2	t4	t5	(4)	+	(1)	(3)
		=	t5		a	(5)	=	a	(4)
2.	x = y[i]	op	arg1	arg2	result	op	arg1	arg2	
		=[]	y	i	t1	(0)	=[]	y	i
		=	t1		x	(1)	=	x	(0)
3.	x = -(a*b) + c*d	op	arg1	arg2	result	op	arg1	arg2	
		*	a	b	t1	(0)	*	a	b
		uminus	t1		t2	(1)	uminus	(0)	
		*	c	d	t3	(2)	*	c	d
		+	t2	t3	t4	(3)	+	(1)	(2)
		=	t4		x	(4)	=	x	(3)