

10

OP

~~10 = 0 f~~  
~~10 15~~

TASK: REDUCE THE NUMBER OF REGISTER ::

TIME UNIT	MF	Ex	COMMENTS
1.	LD R <sub>1</sub> , a		R <sub>1</sub> = a
2.	LD R <sub>2</sub> , b		R <sub>2</sub> = b
3.	LD R <sub>3</sub> , c	ADD R <sub>1</sub> , R <sub>1</sub> , R <sub>2</sub>	R <sub>3</sub> = c / R <sub>1</sub> = R <sub>1</sub> + R <sub>2</sub> = (a+b)
4.	LD R <sub>2</sub> , d	ADD R <sub>1</sub> , R <sub>1</sub> , R <sub>3</sub>	R <sub>2</sub> = d / R <sub>1</sub> = R <sub>1</sub> + R <sub>3</sub> = (a+b) + c
5.	LD R <sub>3</sub> , e		R <sub>3</sub> = e
6.		ADD R <sub>2</sub> , R <sub>2</sub> , R <sub>3</sub>	R <sub>2</sub> = R <sub>2</sub> + R <sub>3</sub> = (d+e)
7.		ADD R <sub>1</sub> , R <sub>1</sub> , R <sub>2</sub>	R <sub>1</sub> = R <sub>1</sub> + R <sub>2</sub>

(a+b) + c + (d+e)

R<sub>1</sub> = (a+b) + c + (d+e)

EXECUTION TIME : 7 Unit time !!!

Number of Registers : 3 !!!

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BSCS-5A