**تمرین یازدهم درس ساختار زبان و کامپیوتر  
ایمان محمدی، شماره دانشجویی {}**  
تاریخ : 5 دی 1400

Address Machine Code Assembly Code

000000 MAIN START 0

000000 90ECD00C STM 14,12,12(13)

000004 05C0 BALR 12, 0

000006 USING \*,12

000006 50D0C020 ST 13, SAVEA+4

00000A 41D0C01C LA 13, SAVEA

00000E 4110C076 LA 1,ARGS

000012 58F0C082 L 15,=V(ADDER)

000016 05EF BALR 14,15

000018 58D0C020 L 13,SAVEA+4

00001C 98ECD00C LM 14,12,12(13)

000020 07FE BR 14

000024 SAVEA DS 18F

00006C 0005 N DC H’5’

00006E 0302070405 ARRAY DC H’3,2,7,4,5’

000078 SUM DS F

00007C ARGS DC V(N,ARRAY,SUM)

000088 DC V(ADDER)

00008C END MAIN

Address Machine Code Assembly Code

000000 ADDER START 0

000000 90ECD00C STM 14,12,12(13)

000004 05C0 BALR 12, 0

000006 USING \*,12

000006 50D0C03E ST 13, SAVEA+4

00000A 41D0C03A LA 13, SAVEA

00000E 58210000 L 2,0(1) @N

000012 48220000 LH 2,0(2) N

000016 58310004 L 3,4(1) @ARRAY

00001A 58510008 L 5,8(1) @SUM

00001E 1744 XR 4,4

000020 48030000 LOOP LH 0,0(3)

000024 45E0C082 BAL 14,=V(FACT)

000028 1A41 AR 4,1

00002A 41330002 LA 3,2(3)

00002E 4620C01A BCT 2,LOOP

000032 50450000 ST 4,0(5) Store in SUM

000036 58D0C03E L 13,SAVEA+4

00003A 98ECD00C LM 14,12,12(13)   
00003E 07FE BR 14

000040 SAVEA DS 18F

000088 DC V(FACT)

00008C END ADDER