Tests & Quizzes

Quiz 07

Return to Assessment List

Part 1 of 5 / 3.0 Points

Question 1 of 5 3.0 Points

Consider the following ARM assembly program

```
     AREA prog, CODE, READONLY
     ENTRY
          MOV   R0, #250
          MOV   R1, #1
repeat    ADD   R1,R1,R0,ASR#3
          TST   R1,#1
          SUBNE R0,#61
          SUBEQ R0,#91
          CMP   R0,#0
          BGT   repeat
halt      B     halt
     END
```

What is the value of R0 and R1 after executing the above program (until reaching the "`B halt`" instruction)?

R0 = 0x ✔ FFFFFFE8 , R1 = 0x ✔ 00000043

How many times is the ADD instruction executed? ✔ 4

Answer Key: FFFFFFE8|-18, 43|00000043, 4

Part 2 of 5 / 1.0 Points

Question 2 of 5 1.0 Points

If the align code is 0x5 and the 0-to-255 value is 0xFA, then the literal value in hexadecimal without any leading zeros will be 0x ✖ 5FA .

Answer Key: 3E800000

Part 3 of 5 / 2.0 Points

Question 3 of 5 2.0 Points

Click to see additional instructions
If the literal value is 0x2000000A, then the align code in decimal will be ✖ 2097152 and the 0-to-255 value in decimal will be ✖ 10 .

Answer Key: 2, 162

Part 4 of 5 / 7.0 Points

Question 4 of 5 7.0 Points

Encode the following ARM assembly instruction to ARM machine language code.
ADC r1,r2,#0xFC000003
0x ✖ FF13A2E2

Answer Key: E2A213FF

Part 5 of 5 / 7.0 Points

Question 5 of 5 7.0 Points

Decode the following ARM machine language code to ARM assembly instruction. 0x71E04345
✖ MVN r4, r5, ASR#6

Answer Key: MVNVC r4,r5,ASR #6