

Name: Adeola Kareem
SRN: 21061803
Module: 7COM1013
Session: mock-ICT2 (G2, nodate from unknown time to unknown time (unknown location))
Submitted: 28/04/2023 16:38:04 (unknown location) time left: N/A
Logged in: [time unknown]
Logged out: [time unknown]

1. Which **one** of the following sequences of CdM-8 pseudo instructions causes the assembler to place the number 18 at memory location 0x3D?

☐ asect 0x3D
 ds 1
 dc 18

☐ asect 0x00
 dc 0x3D
 dc 18

☐ asect 0x3D
 ds 18

☐ asect 18
 dc 0x3D

★ [expected answer]

 asect 0x3D
 dc 18

Points given: 10/10

Name: Adeola Kareem
SRN: 21061803
Module: 7COM1013
Session: mock-ICT2 (G2, nodate from unknown time to unknown time (unknown location))
Submitted: 28/04/2023 16:38:04 (unknown location) time left: N/A
Logged in: [time unknown]
Logged out: [time unknown]

2. Which of the following sequences of CdM-8 instructions copy the contents of memory location 0x22 into register r1
(Tick all that apply)

☐ `ldi r3, 0x22`
`ld r1, r3`

☐ `ldi r1, 0x22`
`ld r3, r1`

★ [expected answer]

`ldi r3, 0x22`
`ld r3, r1`

★ [expected answer]

`ldi r1, 0x22`
`ld r1, r1`

☐ `ldi r1, 0x22`
`ld r1, r3`

Points given: 10/10

Name: Adeola Kareem
SRN: 21061803
Module: 7COM1013
Session: mock-ICT2 (G2, nodate from unknown time to unknown time (unknown location))
Submitted: 28/04/2023 16:38:04 (unknown location) time left: N/A
Logged in: [time unknown]
Logged out: [time unknown]

3. Which **one** of the following instruction sequences stores 9 to the memory cell with the address 0x47?

★ [expected answer]

```
ldi r2, 9  
ldi r3, 0x47  
st r3, r2
```



```
ldi r2, 9  
ldi r2, 0x47  
st r2, r2
```



```
ldi r2, 9  
ldi r3, 0x47  
st r2, r3
```



```
ldi r3, 0x47  
ldi r3, 9  
st r3, r3
```

Points given: 10/10

4. What is the bit-wise OR of the following two 6-bit strings? Make sure you give all 6 bits in your answer

```
100010  
110100
```

supplied answer: 100110

expected answer: 0b110110

Points given: 0/10

Name: Adeola Kareem
SRN: 21061803
Module: 7COM1013
Session: mock-ICT2 (G2, nodate from unknown time to unknown time (unknown location))
Submitted: 28/04/2023 16:38:04 (unknown location) time left: N/A
Logged in: [time unknown]
Logged out: [time unknown]

5. Given the following initial state:

r0 = 10000111
r1 = 10011111
r2 = 10010100
r3 = 00110001
CVZN = 1010

What bit-string is left in register r0 after executing the following instruction:

shl r0

supplied answer: 00001110

expected answer: 0b00001111

Points given: 0/10

6. Which **one** of the following instruction sequences loads the numbers 55 and 19 into two registers and leaves the result of the calculation 55 - 19 in register r0?

☐ ldi r3, 19
ldi r0, 55
sub r0, r3
halt

★ [expected answer]

ldi r3, 55
ldi r0, 19
sub r3, r0
halt

☐ ldi r3, 19
ldi r0, 55
sub r3, r0
halt

☐ ldi r3, 55
ldi r0, 19
sub r0, r3
halt

Points given: 10/10

Name: Adeola Kareem
SRN: 21061803
Module: 7COM1013
Session: mock-ICT2 (G2, nodate from unknown time to unknown time (unknown location))
Submitted: 28/04/2023 16:38:04 (unknown location) time left: N/A
Logged in: [time unknown]
Logged out: [time unknown]

7. Which of the following instruction sequences leave the value 41 in register r1?
(Tick all that apply)

☒ `ldi r3, 41`
`ld r3, r1`
`halt`

☐ `ldi r3, 41`
`move r1, r3`
`halt`

☒ [expected answer]
`ldi r1, 41`
`move r1, r1`
`halt`

☐ `ldi r3, 41`
`st r3, r1`
`halt`

☒ [expected answer]
`ldi r3, 41`
`move r3, r1`
`halt`

Points given: 5/10

Name: Adeola Kareem
SRN: 21061803
Module: 7COM1013
Session: mock-ICT2 (G2, nodate from unknown time to unknown time (unknown location))
Submitted: 28/04/2023 16:38:04 (unknown location) time left: N/A
Logged in: [time unknown]
Logged out: [time unknown]

8. Which of the following instruction sequences swaps the contents of registers r1 and r2?
(Tick all that apply)

☐ `st r2, r3`
`st r1, r2`
`st r3, r1`

☐ `ld r1, r3`
`ld r2, r1`
`ld r3, r2`

☐ `move r1, r2`
`move r2, r1`

★ [expected answer]

`move r1, r3`
`move r2, r1`
`move r3, r2`

★ [expected answer]

`move r2, r3`
`move r1, r2`
`move r3, r1`

Points given: 0/10

Name: Adeola Kareem
SRN: 21061803
Module: 7COM1013
Session: mock-ICT2 (G2, nodate from unknown time to unknown time (unknown location))
Submitted: 28/04/2023 16:38:04 (unknown location) time left: N/A
Logged in: [time unknown]
Logged out: [time unknown]

9. Which of the following instruction sequences leave the number -72 in register r1? (Tick all that apply)

☐ `ldi r3, 72`
`not r3`
`move r3, r1`
`halt`

★ [expected answer]

`ldi r1, 72`
`not r1`
`inc r1`
`halt`

☐ `ldi r1, 72`
`dec r1`
`halt`

☐ `ldi r1, 72`
`not r1`
`dec r1`
`halt`

★ [expected answer]

`ldi r1, 72`
`neg r1`
`halt`

Points given: 10/10

Name: Adeola Kareem
SRN: 21061803
Module: 7COM1013
Session: mock-ICT2 (G2, nodate from unknown time to unknown time (unknown location))
Submitted: 28/04/2023 16:38:04 (unknown location) time left: N/A
Logged in: [time unknown]
Logged out: [time unknown]

10. Which of the following instruction sequences swaps the contents of registers r1 and r3?
(Tick all that apply)

☐ `st r3, r0`
`st r1, r3`
`st r0, r1`

☐ `ld r1, r0`
`ld r3, r1`
`ld r0, r3`

☐ [expected answer]
`move r3, r0`
`move r1, r3`
`move r0, r1`

★ [expected answer]
`move r1, r0`
`move r3, r1`
`move r0, r3`

★ `move r1, r3`
`move r3, r1`

Points given: 0/10

Name: Adeola Kareem
SRN: 21061803
Module: 7COM1013
Session: mock-ICT2 (G2, nodate from unknown time to unknown time (unknown location))
Submitted: 28/04/2023 16:38:04 (unknown location) time left: N/A
Logged in: [time unknown]
Logged out: [time unknown]

11. Which of the following instruction sequences are guaranteed to leave 19 in register r0? (Tick all that apply)

☐

```
ldi r1, 19
ldi r3, 59
if
    cmp r1, r3
is gt
    move r1, r0
else
    move r3, r0
fi
halt
```

★ [expected answer]

```
ldi r1, 19
ldi r3, 59
if
    cmp r1, r3
is lt
    move r1, r0
else
    move r3, r0
fi
halt
```

☐

```
ldi r1, 19
ldi r3, 59
if
    cmp r3, r1
is gt
```

```
    move r3, r0
else
    move r1, r0
fi
halt
```

☐

```
ldi r1, 19
ldi r3, 59
if
    cmp r1, r3
is le
    move r3, r0
else
    move r1, r0
fi
halt
```

★ [expected answer]

```
ldi r1, 19
ldi r3, 59
if
    cmp r3, r1
is ge
    move r1, r0
else
    move r3, r0
fi
halt
```

Points given: 10/10

Name: Adeola Kareem
SRN: 21061803
Module: 7COM1013
Session: mock-ICT2 (G2, nodate from unknown time to unknown time (unknown location))
Submitted: 28/04/2023 16:38:04 (unknown location) time left: N/A
Logged in: [time unknown]
Logged out: [time unknown]

12. Which one of the following instruction sequences calculates 3×10 and leaves the result in register r2?

☐

```
ldi r1, 3
ldi r0, 10
ldi r2, 0
while
    cmp r0, r2
stays lo
    dec r0
wend
halt
```

```
ldi r2, 0
while
    dec r1
stays pl
    add r0, r2
wend
halt
```

☐ [expected answer]

```
ldi r1, 3
ldi r0, 10
ldi r2, 0
ldi r3, 0
while
    cmp r3, r1
stays lo
    add r0, r2
    inc r3
wend
halt
```

☐

```
ldi r1, 3
ldi r0, 10
ldi r2, 0
while
    dec r1
stays pl
    add r0, r0
wend
    move r0, r2
halt
```

★ [expected answer]

```
ldi r1, 3
ldi r0, 10
```

☐

```
ldi r1, 3
ldi r0, 10
ldi r2, 0
while
    cmp r1, r0
stays lo
    add r0, r2
    inc r1
wend
halt
```

Points given: 5/10

*** TOTAL POINTS GIVEN: 80 OUT OF 120 ***