

Review Question and Exercises

Short Answer

1. Bx = 0068h
2. Bx = 0092h
3. Bx = 64BBh
4. Bx = A857h
5. EBX = BFAFF69Fh
6. RBX = FFFF FFFF 5050 9B64h
7. A : 0010 1101b / B : 0100 1000b / C : 0110 1111b / D : 1010 0011b
8. A : 85h / B : 34h / C : BFh / D : Ahh
9.
A : CF = 0, ZF = 0, SF = 0
B : CF = 0, ZF = 0, SF = 0
C : CF = 1, ZF = 0, SF = 1
10. JECXZ
11. 두 명령 모두 CF = 0, ZF = 0일 때 점프
12. EDX = 1
13. EDX = 1
14. EDX = 0
15. True
16. True
17. RBX = 0000 0000 0000 0080h
18. RBX = 0000 0000 0080 8080h
19. RBX = 0000 0000 8080 8080h

Algorithm Workbench

1. And al, OFh

2.

```
    mov  eax, [mem32]
```

```
    xor  al, ah
```

```
    shr  eax, 16
```

```
    xor  al, ah
```

```
    mov  bl, al
```

```
    shr  bl, 4
```

```
    xor  al, bl
```

```
    mov  bl, al
```

```
    shr  bl, 2
```

```
    xor  al, bl
```

```
    mov  bl, al
```

```
    shr  bl, 1
```

```
    xor  al, bl
```

```
    and  al, 1
```

3.

```
    Mov eax, SetX
```

```
    Mov edx, SetY
```

```
    Not edx
```

```
    And eax, edx
```

4.

```
    Cmp dx, cx
```

```
    Jbe L1
```

5. .
Cmp ax, cx
Jg L2

6. .
And al, OFCh
Test al, al
Jz L3
Jmp L4

7. .
Mov eax, val1
Cmp eax, ecx
Joe Else
Cmp ecx, edx
Joe Else
Mov X, 1
Jmp Done
Else:
Mov X,2
Done:

8. .
cmp ebx, ecx
jg Set1
cmp ebx, val1
jg Set1
mov X, 2
jmp Done
Set1:
mov X, 1
Done:

9. .
cmp ebx, ecx
jle Check2
cmp ebx, edx
jle Check2
mov X, 1
jmp Done

Check2:
cmp edx, eax
jg Set1
mov X, 2
jmp Done

Set1:
mov X, 1
Done:

10. .
WhileTop:
 cmp N, 0
 jle WhileEnd

 mov eax, N
 cmp eax, 3
 je ElsePart

```
cmp eax, A
jl ThenPart
cmp eax, B
jg ThenPart
jmp ElsePart
```

ThenPart:

```
sub N, 2
jmp WhileTop
```

ElsePart:

```
sub N, 1
jmp WhileTop
```

WhileEnd: