

# Laboratory Worksheet #02

## Logic Exercise

Answer the following questions given:

char a,b,c,d;

a = 0x00;

b = 0x0F;

c = 0x09;

0000 0000

0000 1111

0000 1001

0000 1111

0000 0100

0100

0x04

0011

0000

0011

1111

What is the value of d after execution of the following lines?

1) d = a & c;

0x00

2) d = b & c;

0x09

3) d = b & 0x04;

0x04

4) d = b & 0x33;

0x0c

5) d = b & !c;

0x00

Are the following TRUE or FALSE?

6) (a && c)

FALSE

7) (b && c)

TRUE

8) (b && 0x04)

TRUE

What is the value of d after execution of the following lines?

9) d = a | c;

0x09

10) d = b | 0x10;

0x1f

11) d = b | a;

0xff

12) d = b | !a;

0x0f

Convert the following hex numbers to binary:

13) (a || c)

TRUE

14) (a || (c & 0x10))

FALSE

15) (a || !b)

FALSE

0001 0000

0000 1001

↓

0000 0000

When complete, include Worksheet 2 with your Laboratory 1-1 Pre-lab submission.