**Operators Associativity and Precedence Assignment**

**1. Use operator associativity, evaluate the folowing expressions and predict the output**

**a. x = 34 + 12/4 – 56** // 34 + 3 – 56 -> 36 – 56 -> -20

**b. 12 + 3 - 4 / 2 < 3 + 1**// 12 + 3 – 2 < 3 + 1 -> 13 <4 -> False

**c. (2 + (3 + 2) ) \* 10** // (2+5)\*10 -> 7\*10 -> 70

**d. 34 + 12/4 – 45** // 34 + 3 – 45 -> 37 – 45 -> -8

**2. Rewrite the following expressions with improved readability**

**a. age < 18 && height < 48 || age > 60 && height > 72** // (age < 18 && height < 48) || (age > 60 && height > 72)

**b. char name value** // char name\_value

**c. char $name** // char name

**3. Predict the value of a after each statement**.

int main(void)

{

int i = 10;

char a = 'd';

a += 10; **// before it ‘a’ value is 100(ASCII value of ‘d’) 100 + 10 = 110 -> 110 is ASCII value of ‘n’ -> a = ‘n’**

a \*= 5; // 110\*5 = 550

a /= 4; //

a %= 2; //

a \*= a + i;

return 0;

**}**

**4. Consider a = 12, b = 3, predict the output of the following .**

**a. (a>100) && (b<10)** -- False

**b. (a==4) && (b==2)** -- False

**c. (a==11) && (a++)** -- False

**5. Consider a = 10, b = 11, predict the output of the following .**

**a. (a>10) || (b<10)** -- False

**b. a || 12.12** -- True

**c. a || b** -- True

**d. !(a > 5)** – False

**6. Consider int age = 10, height = 45, year = 2000; Predict the output of the following.**

**a. (age < 12 && height < 48) || (age > 65 && height > 72)** // True

**b. (year % 4 == 0 && year % 100 != 0 ) || (year % 400 == 0);** // True