Assignments

Subject	**c**	**Batch**	ES--02
Time		**Date**	**04-02-2026**

- Outputs & observations are to be written into Assigngnment1_ans***.txt***
- Write answers in the text file exactly in the same order as questions given below.
- At the end of assignment write "***END OF ASSIGNMENT-5***"

[Control structure – Decision making]

1. **Write a program to print the type(category) of user supplied char from stdin. The categories are Numeric/Uppercase/lowercase/spl char. (Write program using if/else) and (Write program using conditional operator.)**

2. Write a program to test the status of a bit in a supplied integer. (It should display the bit is 1 or 0).
3. Evaluate and find out which one is appropriate and equal to **x%y**
   - y-(x/y)*x
   - x-(x/y)*y
   - x-(y/x)*x
   - y-(y/x)*y

4. Find the output

```
void main ( ) {
 int x,y; x=10;
y=sizeof(++x);
printf(&amp;quot;x=%d y=%d&amp;quot;, x,y); Why?
 }
```

5. What will be the value of 'x' after execution of the following program?

```
 void main ( )
{
int x=!0*20;
 }
```

Why?

6. Find the output

```
void main( )
{
int a=3, b=4, c;
```

```
c=b==4||a!=3;
printf (&temp;%d&temp; c);
}
 } Reason?
```

7. Consider a scenario where a “raise”flag is modified within any function and accessed in the other function. If that flag is ‘1’ , make result variable ‘1’ else ‘0’. If flag is ‘0’the code should wait on testing the raise flag.
8. What is a difference between unsigned int and signed int in C? Write description.
9. Write a for loop without initialization, condition, or increment.
10. What is the output.

```
#include <stdio.h>
int main() {
    int i = 0;
    for(i = 0; i < 5; i++);
    printf("%d\n", i);
    return 0;
}
```

11. What is the output

```
#include <stdio.h>
int main() {
    unsigned char x = 250;
    for(; x >= 0; x--) {
        printf("%u ", x);
        if (x == 0) break;
    }
```

12. What is the output.

```
 #include <stdio.h>
    int main()
    {
        int x = 1, y = 0, z = 3;
        x > y ? printf("%d", z) : return z;
    }
    return 0;
}
```

13. What is the output

```
#include <stdio.h>
int main()
{
int i = -3;
int k = i % 2;
printf("%d\n", k);
}
```

14. Write a program to swap lower nibbles. Let’s say i=0x1234. Make it

i=0x3412., If I = 0x12345678 then it should change to 0x34127856.

********** ***END OF ASSIGNMENT-5***
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