
Assignement-II
National Institute of Technology Silchar
Due date: 29 November 2022

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Subject Code: CS-101
Semester: 1st
Course: B.Tech

Subject: Introduction to Computer Programming
Department: CSE
Section: J

Answers should be submitted in a scanned copy of the handwritten format.

1. Write a program to display all the escape characters in C. Also, display %, '\0'.
2. Write a program to insert a b-bit number in a 32-bit number where $b < 32$.
3. Write a program to find the greatest among five numbers using if else.
4. What are the outputs of the following code? What are the purposes of the following programs? Justify your answer.

(a)

```
#include<stdio.h>
#include<stdlib.h>
int main()
{
    int a=rand();
    int b=rand();
    int c=~(~a & b) & ~(a & ~b));
    printf("%d\n",c);
    retrun 0;
}
```

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- (b)

```
#include<stdio.h>
#include<stdlib.h>
int main()
{
    int a=rand();
    int b=rand();
    int c=~(~a | ~b);
    printf("%d\n",c);
    retrun 0;
}
```
- (c)

```
#include<stdio.h>
#include<stdlib.h>
int main()
{
    int x=rand();
    int y=rand();
    int z=y ^ ((x ^ y) & -(x < y));
    printf("%d\n",z);
    retrun 0;
}
```
- (d)

```
#include<stdio.h>
#include<stdlib.h>
int main()
{
    int x=rand();
    int y=rand();
    int z=x ^ ((x ^ y) & -(x < y));
    printf("%d\n",z);
    retrun 0;
}
```

5. Write a program to check if an integer is a power of 2.
6. How to toggle a particular bit in C?
7. Write a program to rotate bits of a number in C, either right or left.