

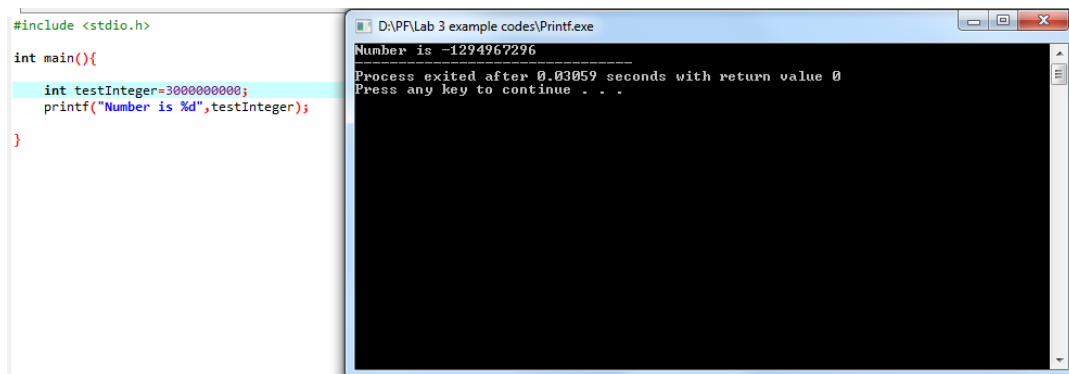
## QUESTION#1

Write the datatypes of the following values:

- "Welcome to the FAST University 20K BCS-1K"
- $4 \times 10^6$
- 400000000
- 5.000000000000009

## QUESTION#2

Explain the output of this C program. Why is the wrong value is being displayed in the output?



```
#include <stdio.h>

int main(){
    int testInteger=3000000000;
    printf("Number is %d",testInteger);
}
```

Number is -1294967296  
Process exited after 0.03059 seconds with return value 0  
Press any key to continue . . .

## QUESTION#3

A customer asks the IT firm to develop a program in C language, which can take tax rate and salary from the user on runtime and then calculate the tax, the user has to pay and the salary he/she will have after paying the tax. This information is then provided to the user.

## QUESTION#4

Cryptocurrency is getting mainstream these days, many people are investing in different types of cryptocurrencies like Bitcoin, Ethereum, Cardano, Tether etc. It's basically form of payment that can be exchanged online for goods and services. Many companies have issued their own currencies, often called tokens. Cryptocurrencies work using a technology called blockchain. You are required to write a C program to convert Bitcoin currency into PKR and vice versa.

## QUESTION#5

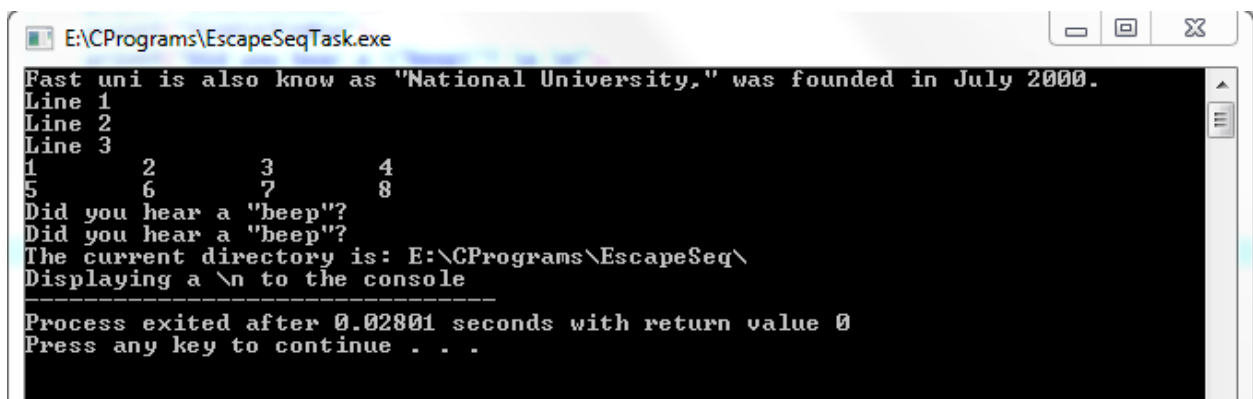
Write a C program where user is asked to enter the dividend and divisor and the program finds the quotient and remainder based on the input values.

## QUESTION#6

A network engineer uses ASCII (American Standard Code for Information Interchange) code to transmit data in a secure way by encrypting it. ASCII codes can be useful to send your data secretly using secret key. You are required to write a C code to print ASCII value of a character.

## QUESTION#7

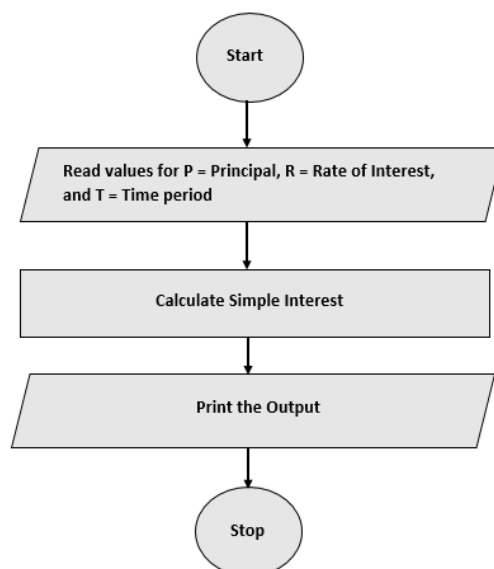
Write a C Program to display the following output.



```
Fast uni is also know as "National University." was founded in July 2000.
Line 1
Line 2
Line 3
1      2      3      4
5      6      7      8
Did you hear a "beep"?
Did you hear a "beep"?
The current directory is: E:\CPrograms\EscapeSeq\
Displaying a \n to the console
-----
Process exited after 0.02801 seconds with return value 0
Press any key to continue . . .
```

## QUESTION#8


Construct a C program with the flowchart below. The input value of the Principle must be between 100 Rs. To 1,000,000 Rs. The Rate of interest must be between 5% to 10% and Time Period must be between 1 to 10 years. Hint: these restrictions can be displayed in the form of message on the window.



### QUESTION#9

Write a C Program to display the following output.

a)



```
E:\CPrograms\L3Task9.exe
I am
21K-YourNumber!
I am 21K-YourNumber!
"I am 21K-YourNumber!"
I a21K-YourNumber!
-----
Process exited after 0.1119 seconds with return value 0
Press any key to continue . . .
```

**b)**

```
*  
*  
*      *  
*      *  
*  
  
...Program finished with exit code 0  
Press ENTER to exit console.
```