Date 16/1/24
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LAB-PROGRAM-6

* Strings

1) Shivu
   Shivraj
   Ansh

2) length = 5
   Hi shiv

3) a = 333

4) BmsCE

5) 65
   66
   67
   abc

6) true
   false
   false
   true

7) substring is matched

8) true
   true

9) false
   true

10) true
false

11) Apple ball cat dog ent free gun hen ice jug
kite lift man net orange parrot queen ring star tree

12) 1 2 3 4 5 6 7 8 9 10

13) This is a test , This is , too

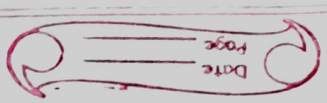
14) hello world

15) Commege

16) Hello friends

17) Student 1
~~Anu~~ name : anu
Reg no : 123
Sem : 3
CGPA : 9.6

Student 2
name : Shiva
Reg no : 143
Sem : 3
CGPA : 9.6



18) char at 3 is 'x'
abc
reverse : inohd

19) Eagle is flying
Eagle makes a sound

Hawk is flying
Hawk makes a sound

20) Carea : 28.26
Cperi : 18.84

Tarea : 40
Tperi : 83

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Generics

Q: Write a Java program to create a generic class Stack which hold 5 integers & 5 double values

→
```
import java.util.*;
class stack <E>{
    E stk[];
    int top;
    int size = 10;
    stack(){
        stk = (E[]) new Object[size];
        top = -1;
    }
    void push(E item){
        if(top == size-1){
            System.out.println("overflow");
        }
        else{
            stk[++top] = item;
    } }
    E pop(){
        if(top<0){
            System.out.println("Underflow");
            return null;
        }
        else
            return stk[top--];
        }
    }
```

```
public class TestStack {
    public static void main (String args[]) {
        Stack<Integer> s1 = new Stack<Integer>();
        Stack<Double> s2 = new Stack<Double>();
        Scanner s = new Scanner (System.in);
        System.out.println("Enter elements in integer stack");
        for (int i=0; i<5; i++) {
            int n = s.nextInt();
            s1.push(n);
        }

        System.out.println("Enter elements in Double Stack");
        for (int i=0; i<5; i++) {
            double m = s.nextDouble();
            s2.push(m);
        }

        System.out.println("Elements of s1");
        for (int i=0; i<5; i++) {
            System.out.println(s1.pop());
        }
        System.out.println("Elements of s2");
        for (int i=0; i<5; i++) {
            System.out.println(s2.pop());
        }
        s.close();
    }
}
```

Output:-

Enter elements in integer stack

1 3 6 9 12

Enter elements in Double stack

2 4 5 7 8

Elements of s1:

12

9

6

3

1

Elements of s2:

8.0

7.0

5.0

4.0

2.0

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