



## **CLASS X**

**Subject: Computer Application**

**Date: 12/05/20**

**Topic: String manipulation**

**Time Limit: 1 hour 30 minutes**

## **Worksheet No.:3**

**[Minutely go through all the topics given below.]**

**concept :**

**1) substring :**

**i. substring( int )**

**It returns a substring from nth position of the given string.**

**For example if String s="abcdefg" , if we write a statement**

**String t=s.substring (2);**

**System.out.println (t);**

**As a is present 0<sup>th</sup> position, b is in position 1 and so on**

**So the above statement will print all the characters starting from position 2. So t will store “cdefg”.**

**Let us write a simple program by using substring .**

**Q 1) Print the given output.**

**D**

**CD**

**BCD**

**ABCD**

```
class word  
{  
Public static void main()  
{  
String s="ABCD";  
String t="";  
int i,n=0;  
n=s.length()-1;  
  
for(i=n;i>=0;i--)  
{  
  
t=s.substring(i);  
System.out.println(t);
```

```
}  
}  
}
```

### **Working of the program:**

In the above program in the variable s, position of A is 0 , B=1 C is 2 and D is 3;

So in the for loop , the initial value of i is 3 ,So the string t will store the letter 'D', which itself is stored in the position 3 .next time value of i is 2 so t will store letters present in the position 2 and 3.

So t will store and print "CD", As value of i will further decrease to 1 t will store and print "BCD" and finally it will print "ABCD"

### **ii) substring( int m ,int n )**

example String s="ABCDEFGH"

01234567

String t = s.substring(2,5);

It will extract characters from position m up to position n-1

So t will store all the letters from position 2 up to position 4.

So t will store “CDE”.

## Problem 2

To generate and print letters from A to Z and their ASCII value.

(ICSE 2019)

### Letters Unicode

A      65

B      66

·      ·

·      ·

Z      90

```
class letters
```

```
{  
    public static void main()  
    {  
        int i;  
        char c=' ';
```

```
System.out.println("letters"+" "+"ascii ");  
for(i=65;i<=90;i++)  
{  
    c=(char)i;  
    System.out.println(c+"\t "+i);  
}  
}  
}
```

### **Working of the program:**

**As we know ASCII value of all uppercase letters are from 65 to 90. So by using a loop we are generating the numbers from 65 to 90.**

**c=(char)i is a statement for typecasting, where we are converting each ASCII value to its corresponding character form.(here uppercase letters).**

**And by using System.out.println() we are printing each character and its ASCII value. Where c represents each character and i represents ASCII value.**

**Q 3)**

**Write a program to accept a sentence and print only the first letter of each word of the sentence in capital letters separated by a full stop. Example : INPUT SENTENCE : "This is a cat" OUTPUT : T.I.A.C.**

```
class letters
```

```
{  
    public static void main(String s)  
    {  
        s=" "+s;  
        int i,n=0;  
        char c=' ',d=' ';  
        n=s.length()-1;  
        for(i=0;i<n;i++)  
        {  
            c=s.charAt(i);  
            if(c==' ')  
            {  
                d=s.charAt(i+1);  
                d=Character.toUpperCase(d);  
                System.out.print(d+".");  
            }  
        }
```

```
}  
}  
}
```

### **Working of the program.**

**We are adding a space at the beginning of the sentence so that the program will be able to understand, that before first letter of each word there is a space.**

**In the variable c we are extracting each character and if the value stored in variable c is a space, we are storing the character present in the next position in the variable d, and changing it in to uppercase and printing it.**