

Tender Heart High School

Class: x

Computer Application

Topic: previous year questions
on String handling in java

① State the Output :-

```
String s = "Examination";  
int n = s.length();  
System.out.println(s.startsWith(s.substring(s,n)));  
System.out.println(s.charAt(2) == s.charAt(6));
```

② State the data type and values of a and b after the following segments is executed.

```
String s1 = "Computer", s2 = "Applications";  
a = (s1.compareTo(s2));  
b = (s1.equals(s2));
```

③ What will be the following code output?

```
String s = "Malayalam";  
System.out.println(s.indexOf('m'));  
System.out.println(s.lastIndexOf('m'));
```

④ State the values stored in the variables str1 and str2 -

```
String s1 = "good"; String s2 = "Boys matters";  
String s1 = s2.substring(3).replace('t', 'n');  
String str2 = s1.concat(str1);
```

⑤ Write the output for the following :-

```
String s1 = "Phoenix"; String s2 = "island";  
System.out.println(s1.substring(0).concat  
s2.substring(2));  
System.out.println(s2.toUpperCase());
```

⑥ Consider the following string ~~array~~ function and give output:

- (i) "ACHIEVEMENT".replace('E', 'A');
- (ii) "DEDICATE".compareTo("DEVOTE");

⑦ Write the output for the following:-

```
System.out.println("Incredible" + "\n" + "World");
```

```
System.out.print("BEST");  
System.out.println("OF LUCK");
```

Choose the correct option for the output of the above;

- i BEST OF LUCK
- ii BEST
of luck

⑧ Write the output:

```
String s = "Today is Test";  
System.out.println(s.indexOf('T'));  
System.out.println(s.substring(0,7) + " " + "Holiday");
```

⑩ Give output:

- (i) "MISSISSIPPI".indexOf('S') + "MISSISSIPPI",
lastIndexOf('I');

Class: X

Computer Application

Topic: Blindrome number v/s Palindrome String

Number Palindrome

import java.util.*;

class pal

{

public static void main()

{

Scanner sc = new Scanner(System.in)

System.out.println("Enter the number:");

int n = sc.nextInt(); int a, r = 0;

for (int i = n; i > 0; i = i / 10)

{

a = i % 10;

r = (r * 10) + a;

}

System.out.println(r);

if (n == r)

System.out.println("It is palindrome");

else

System.out.println("It is not palindrome");

}

String Palindrome

```
import java.util.*;
```

```
class pals
```

```
{
```

```
    public static void main()
```

```
    {
```

```
        Scanner SC = new Scanner(System.in);
```

```
        System.out.println("Enter String:");
```

```
        String s = SC.nextLine();
```

```
        String SI = ""; char ch;
```

```
        int l = s.length();
```

```
        for (int i = l-1; i >= 0; i--)
```

```
        {
```

```
            ch = s.charAt(i);
```

```
            SI = SI + ch;
```

```
        }
```

```
        if (SI.equals(s))
```

```
            System.out.println("Palindrome");
```

```
        else
```

```
            System.out.println("Not a palindrome");
```

```
        }
```

```
    }
```

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Class: x

Computer Application

Topic: Library Classes

Date: _____

Teacher: Prabhdeep kaur

Package: A package is a collection of classes containing different built-in-functions.

Package
import java.io.*; — all classes containing io functions

java.io

java.util

java.lang

java.applet

java.net

Wrapper class: ^{is a library class} Class which is used of ^{datatype} convert one ~~class~~ to another i.e primitive to nonprimitive and vice versa

In implicit & explicit conversion we are converting primitive to ^{non-}primitive datatype like int to float

Classes reside in package and default package of java i.e java.lang [in which wrapper class] & for each primitive data type its wrapper class is their.

Primitive

wrapper class

int

InTEGER

double

Double

float

Float

short

Short

Class X
Library Classes

char

byte

boolean

long

Character

Byte

Boolean

Long

Computer Application
Teacher: Prabhdeep kaur

Autoboxing / Boxing

converting of primitive datatype to non-primitive datatype automatically

Eg.

```
int a = 25;  
Integer ob = new Integer(10);  
ob = a;  
ob = 5;
```

} autoboxing

you are converting it into object by using Integer wrapper class.

UnBoxing is the opposite i.e non primitive datatype into primitive datatype.

Eg.

```
Integer ob = new Integer(5);  
int a = ob; // unboxing
```

Class X

Library Classes

Conversion from String to Primitive Type:-

① String to Integer type data

a) Integer.parseInt()

b) Integer.valueOf()

```
String s = "25";  
int a = Integer.parseInt(s);  
      or  
int a = Integer.valueOf(s);
```

} a = 25

② String to long type data

```
String s = "12345";  
long l = Long.parseLong(s);  
      or  
long l = Long.valueOf(s);
```

} l = 12345

③ String to float type data

```
String s = "12.34";  
float f = Float.parseFloat(s);  
      or  
float f = Float.valueOf(s);
```

} f = 12.34

④ String to double type data

```
String s = "12.345";  
double d = Double.parseDouble(s);  
      or  
double d = Double.valueOf(s);
```


class X

Library classes

Character Functions

① Character.isLetter()

Syntax boolean variable = Character.isLetter(~~char~~);

if any function name contain is in its name its return type is always boolean

boolean a = Character.isLetter('m');

a = true

boolean b = Character.isLetter('2');

b = false

In single quotes only

② Character.isDigit()

Syntax boolean variable = Character.isDigit(character);

boolean a = Character.isDigit('m');

a = false

boolean b = Character.isDigit('2');

b = True

Always pass value as character whether it is letter or digit

③ Character.isLetterOrDigit()

Syntax boolean variable = Character.isLetterOrDigit(character);

boolean a = Character.isLetterOrDigit('m');

a = True

boolean b = Character.isLetterOrDigit('2');

b = True

boolean c = Character.isLetterOrDigit('?');

c = False

Class X

Library classes

④ Character.isWhiteSpace()

Syntax: boolean variable = Character.isWhiteSpace(char)
boolean a = Character.isWhiteSpace('m');
a = false
boolean b = Character.isWhiteSpace(' ');
b = True
boolean c = Character.isWhiteSpace('2');
c = false

⑤ Character.isUpperCase()

⑥ Character.isLowerCase()

⑦ Character.toUpperCase()

return always argument type

Syntax: char variable = Character.toUpperCase(char)
char a = Character.toUpperCase('p');
a = P
char b = Character.toUpperCase('M');
b = M
char c = Character.toUpperCase('2');
c = 2

⑧ Character.toLowerCase()

CLASS X

Library classes

Programs:

- ① WAP to enter a letter change the case of the entered letter and display the new letter and its ASCII code

Sample Input: A

Output: a

ASCII: 97

```
import java.util.Scanner;
```

```
class togglecase
```

```
{
```

```
    public static void main()
```

```
    {
```

```
        Scanner sc = new Scanner(System.in);
```

```
        System.out.println("Enter a letter");
```

```
        char ch = sc.next().charAt(0);
```

```
        if(Character.isLetter(ch) != true)
```

```
            System.out.println("Not a letter");
```

```
        else
```

```
        {
```

```
            if(Character.isUpperCase(ch) == true)
```

```
            {
```

```
                char chl = Character.toLowerCase(ch);
```

```
                System.out.println(chl);
```

```
                System.out.println((int) chl); // For ASCII value
```

```
            else
```

```
            {
```

```
                char chl = Character.toUpperCase(ch);
```

```
                System.out.println(chl);
```

```
                System.out.println((int) chl);
```

```
            } }
```

```
    }
```

class x

Library Classes

② WAP to display the uppercase letters along with its ASCII code side by side in two different columns :

Sample Output : upper Letter ASCII Code

```
import java.util.Scanner;    A                  65
class upAscii                  B                  66
{
    public static void main()
    {
        Scanner sc = new Scanner(System.in)
        System.out.println("Enter the upper letter & Ascii code");
        char ch = sc.next().charAt(0);
        for (int i = 65; i <= 90; i++)
        {
            System.out.println((char)i + "||" + i);
        }
    }
}
```


class X

Library classes

③ WAP to display Pattern

class Pattern

{

public static void main()

{

for(int i=65; i<=69; i++)

{

for(int j=65; j<=i; j++)

{

System.out.print((char)j);

}

System.out.println();

}

}

}

A

A B

A B C

A B C D

A B C D E

④ WAP to input a character and display next 10 characters in the ASCII table.

import java.util.*;

class CharASCII

{ public static void main()

{ Scanner sc = new Scanner(System.in)

System.out.print("Enter a character");

char ch = sc.next().charAt(0);

int m = (int)ch;

for(int i=1; i<=10; i++)

{

m++;

System.out.println((char)m);

}

}

// typecasting for getting
ASCII value of character

Class x

Library classes

⑤ WAP to Input N characters. Find and display the count of upper-case characters

```
import java.util.*;
```

```
class uppercase
```

```
{
```

```
    public static void main()
```

```
    {
```

```
        Scanner sc = new Scanner(System.in)
```

```
        char ch;
```

```
        int ctr = 0;
```

```
        System.out.println("Enter N");
```

```
        int N = sc.nextInt();
```

```
        for(int i = 1; i <= N; i++)
```

```
        {
```

```
            ch = sc.next().charAt(0);
```

```
            if (Character.isLetter(ch))
```

```
            {
```

```
                if (Character.isUpperCase(ch))
```

```
                    ctr++;
```

```
            }
```

```
        }
```

```
        System.out.println("The count of uppercase  
        character is: " + ctr);
```

```
    }
```

```
}
```

Class X

Library classes

Do programs for practice :- [Previous year Questions]

① WAP to input 20 characters. Find and display the count of vowels from these characters.

② WAP to generate: (i) ABCDE
ABC
A

(ii) A@
A@B@
A@B@C@
A@B@C@D@
A@B@C@D@E@

③ State the method that: (i) convert a string to a primitive float data type.

(ii) Determines if the specified character is an uppercase character.

④ Name any two wrapper classes.

⑤ What is the datatype that the following library functions return? (i) `isWhitespace(char)`

⑥ What is meant by a package? Name any two java Application interface packages.

⑦ output: `String s = "lool";`
`int x = Integer.valueOf(s);`
`double y = Double.valueOf(s);`
`System.out.println("x=" + x);`
`System.out.println("y=" + y);`
`System.out.println("The king said \`
`"Begin at the beginning! I to me");`

⑧ Name the wrapper classes of char type and boolean type

⑨ Write return type of library function: `isLetterOrDigit(char)`

Class : X

Topic : Library classes

⑩ State the value and datatype of res

```
char ch = 't';
```

```
res = Character.toUpperCase(ch);
```

⑪ Write the difference between `isUpperCase()` and `toUpperCase()`

⑫ Name the package that contain wrapper classes

⑬ Output of following code:

```
String P = "20", Q = "19";
```

```
int a = Integer.parseInt(P);
```

```
int b = Integer.parseInt(Q);
```

```
System.out.println(a + " " + b);
```

⑭ datatype and value of : `char ch = 'q';`

```
res = Character.isDigit(ch);
```