U.G. 4th Semester Examination - 2022

BCA

[HONOURS]

Course Code : BBCACCHC 403

Course Title: Object Oriented Programming using JAVA

Full Marks : 30   Time : 2 Hours

The figures in the right-hand margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

1.   Answer any **ten** questions: 1×10=10

a)   Find the output of the following code:

int x = 10;

String y = "Java";

System.out.print(x);

System.out.print(y);

b)   Define constructor.

c)   Write the utility of 'super' keyword.

d)   Define thread.

e)   What is byte code?

f)   Differentiate between private and protected access specifier.

g)   What will be the output of the following Java program?

```
class output{
        public static void main(String aa[])  {
                int arr[ ]={11, 22, 33, 44, 55};
                for (int i=0;i<arr.length-2;++i)
                        System.out.print(arr[i]+" ");
        }
}
```

h)   What if I write static public void instead of public static void?

i)   What are the basic properties of static variable?

j)   When do we declare a class as final?

k)   Define generic programming.

l)   Write the similarities between class and interface.

m)   What is meant by garbage collection in Java?

n)   Give examples of compile time and run time polymorphism in java.

o)   Write down the utility of 'util' package in java.

2.   Answer any **five** questions: 2×5=10

a)   Differentiate remote applet and local applet.

b)   What is the purpose of <APPLET> and <PARAM> tag in applet programming?

c) Differentiate between equals ( ) method and '= =' operator.

d) What will be the output of the following Java program? Justify.

```
class University
{
    public void display( )
    {
        System.out.println("UNIVERSITY");
    }
}
class College extends University
{
    public void display()
    {
        System.out.println("COLLEGE");
    }
}
class TEST
{
    public static void main(String[] args)
    {
        College ob = new College();
        ob.display();
    }
}
```

e) What is multithreading? How it is differ from multitasking?

f) What is the use of 'this' keyword in Java?

g) What do you mean by method overloading? Give an example.

h) 'Java is robust and secure'—Justify.

3. Answer any **two** questions: 5×2=10

a) i) Discuss about thread life cycle.

ii) What is the use of resume() method in java?   4+1

b) What do you mean by dynamic method dispatch? Write a java program which illustrates dynamic method dispatch.   1+4

c) i) Give a programming example where an interface is used to support multiple inheritance.

ii) What is exception in java?   4+1

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