

SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN
(AUTONOMOUS)

(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)
Chromepet, Chennai - 600 044.

B.Sc. CS with CGS - END SEMESTER EXAMINATIONS APRIL - 2024
SEMESTER - VI

21UCGCT6010 - Java Programming

Total Duration : 2 Hrs. 30 Mins.

Total Marks : 60

Section B

Answer any **SIX** questions ($6 \times 5 = 30$ Marks)

1. List out the characteristics and features of Java.
2. Compare and contrast Java with C and C++.
3. Discuss the role of operators in Java and give examples of arithmetic, relational, and logical operators.
4. Explain the concept of variables in Java and Write a java program using different data types.
5. What is the difference between an array and a vector?
6. Discuss the concept of deadlock in multi-threaded programming.
7. Explain all the stages present in applet life cycle with neat diagram.
8. Explain the output of the following program.

```
import java.applet.*;
import java.awt.*;
public class Main extends Applet
{
    public void paint(Graphics g)
    {
        g.drawString("Welcome in Java Applet.",40,20);
    }
}
< HTML >
< HEAD > </HEAD >
< BODY >
< div > <APPLET CODE="Main.class" WIDTH="800"
HEIGHT="500" >
< /APPLET >
< /div >
< /BODY >
< /HTML >
```

Section C

Answer any **THREE** questions ($3 \times 10 = 30$ Marks)

9. Illustrate the structure of Java programming with example program.
10. Discuss the concept of classes and objects with suitable example.
11. How do you create your own package and import it in java program? Explain the procedure step-wise with suitable example.
12. Develop a simple Java applet that draws geometric shapes on the applet window.
13. Compare and contrast the `drawLine()` and `drawRect()` methods in the `Graphics` class. Discuss situations where using one method is more suitable than the other.
