

**(FOR THE CANDIDATES ADMITTED  
DURING THE ACADEMIC YEAR 2023 ONLY)**

**23UBC412**

**REG.NO. :**

**N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI**

**END-OF-SEMESTER EXAMINATIONS : MAY - 2025**

**B.C.A**

**MAXIMUM MARKS: 75**

**SEMESTER: IV**

**TIME : 3 HOURS**

**PART - III  
JAVA PROGRAMMING**

**SECTION – A**

**(10 X 1 = 10 MARKS)**

**ANSWER THE FOLLOWING QUESTIONS.**

**MULTIPLE CHOICE QUESTIONS.**

**(K1)**

1. Which keyword is used to declare a constant variable in Java?  
a) static    b) final    c) constant    d) immutable
2. Which of these packages contains the Exception stack overflow in Java?  
a) java.io    b) java.System    c) java.lang    d) java.util
3. Which of these methods is a part of Abstract Window Tookit(AWT) ?  
a) display()    b) paint()    c) drawString()    d) transient()
4. Which are passive controls that do not support any interaction with the user?  
a) choice    b) list    c) labels    d) checkbox
5. Which object is created by the web container at time of deploying the Project ?  
a) ServletConfig    b) ServletContext    c) Both A & B    d) None of the above

**ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES**

**(K2)**

6. Define Vector.
7. Which keyword is used to inherit from a class?
8. What is an Applet?
9. What is JButton?
10. What is Java Servlet?

**SECTION – B**

**(5 X 5 = 25 MARKS)**

**ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. (K3)**

11. a) Explain Java Data Types .  
**(OR)**  
b) Illustrate If ... Else statement with example.
12. a) Interpret the concept of Interfaces with example.  
**(OR)**  
b) Illustrate Java Threads extend and implements with example.
13. a) Explain the commonly used methods of Graphics class with an example .  
**(OR)**  
b) Demonstrate how to draw a circle using an Applet in Java.

**14.** a) Write a Java Program to demonstrate Creating a Java AWT Checkbox.  
**(OR)**

b) State the usage of JComboBox and list out its methods.

**15.** a) Explain the Advantages and Disadvantages of Java Servlet.  
**(OR)**

b) List and explain the Alternatives of Java Servlet.

**SECTION – C**

**(5 X 8 = 40 MARKS)**

**ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.**  
**(K4 (Or) K5)**

**16.** a) Discuss Java Operators in detail.  
**(OR)**

b) Enumerate on the concept of Arrays.

**17.** a) Outline the Java Packages & API.  
**(OR)**

b) Analyze the usage of Java Exceptions - Try...Catch statement with example.

**18.** a) Summarise the life cycle of Java Applet.  
**(OR)**

b) Write a Java program to Draw a Polygon in Java Applet with the given set of x and y points.

**19.** a) Discuss Java AWT TextField.  
**(OR)**

b) Elucidate Java AWT MenuItem & Menu and Create a simple window with a "File" menu that contains "Open" "Save" and "Exit" options. When you click "Exit" the application must terminate.

**20.** a) Outline briefly on the Overview of practical applications for Java Servlet..  
**(OR)**

b) Outline the Java Servlet Architecture.

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**ETHICAL PAPER**