

**(FOR THE CANDIDATES ADMITTED  
DURING THE ACADEMIC YEAR 2022 ONLY)**

22UBC412

REG.NO. :

**N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI  
END-OF-SEMESTER EXAMINATIONS : MAY-2024  
COURSE NAME: B.C.A  
SEMESTER: IV  
MAXIMUM MARKS: 50  
TIME : 3 HOURS**

**PART - III  
JAVA PROGRAMMING  
SECTION – A**

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

**ANSWER THE FOLLOWING QUESTIONS.**

**MULTIPLE CHOICE QUESTIONS.**

**(K1)**

1. In Java, which of the following is a separator used to end a statement?  
a) Semicolon (;)      b) Comma (,)      c) Colon (:)  
d) Period (.)
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 can be used to output a string in an applet?  
a) display()      b) print()      c) drawString()      d) transient()
4. Which method is used to place some text in the text field?  
a) getText(String str)      b) setText(String str)  
c) putText(String str)      d) None of the above
5. The Java \_\_\_\_\_ specification defines an application programming interface for communication between the Web server and the application program.  
a) Servlet      b) Server      c) Program      d) Randomize

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

**(K2)**

6. Write justification of the statement "Java is platform independent"
7. Define the term multithreading.
8. List the use of Graphics class in applets.
9. Recall the needs of JMenus.
10. What are the reasons to use Java servlets?

**SECTION – B**

**(5 X 3 = 15 MARKS)**

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

11. a) Define a class and object. Write syntax to create class and object with an example.  
**(OR)**  
b) Explain the concept of array with example.
12. a) Illustrate the steps involved in creating packages.  
**(OR)**  
b) How can an exception be handled in java? Explain with example.

**(CONTD.....2)**

13. a) Write a java program for simple applet.  
(OR)  
b) Create a java program to draw multiple lines with different colors on an applet.
14. a) Illustrate the concept of JButton with example.  
(OR)  
b) Create a dropdown list with example.
15. a) Differentiate between HTTP servlet and Generic servlet.  
(OR)  
b) Explain the advantages of servlet over applet.

**SECTION – C****(5 X 5 = 25 MARKS)****ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.****(K4 (Or) K5)**

16. a) Classify the different types of operators.  
(OR)  
b) Interpret the *while* and *do while* statements with example.
17. a) Classify the various types of inheritance with suitable example.  
(OR)  
b) Describe java exception and its types.
18. a) Demonstrate the fundamental methods for drawing graphics in Java applets.  
(OR)  
b) Develop an applet program for drawing circle and ellipses
19. a) Differentiate between *jcheckbox* and *jradiobutton* with example.  
(OR)  
b) Demonstrate the use of *JScrollPane* with an example and its significance.
20. a) Explain the servlet architecture in detail.  
(OR)  
b) Write a Java application to illustrate servlet life cycle

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