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(FOR THE CANDIDATES ADMITTED  
DURING THE ACADEMIC YEAR 2021 ONLY)

21UBC519

REG.NO. :

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

END-OF-SEMESTER EXAMINATIONS : NOVEMBER-2023

COURSE NAME: B.C.A

MAXIMUM MARKS: 70

SEMESTER: V

TIME : 3 HOURS

**PART - III**  
**JAVA PROGRAMMING**

**SECTION - A** (10 X 1 = 10 MARKS)

**ANSWER THE FOLLOWING QUESTIONS.**

**MULTIPLE CHOICE QUESTIONS.**

**(K1)**

1. Who invented Java Programming?  
a) Van Rossum    b) James Gosling    c) Dennis Ritchie    d) Bjarne Stroustrup
2. Using which of the following, multiple inheritance in Java can be implemented?  
a) Interfaces    b) Multithreading    c) Protected methods    d) Private methods
3. Which of these functions is called to display the output of an applet?  
a) display( )    b) paint( )    c) displayApplet( )    d) PrintApplet( )
4. Which class is used as the base class for all swing components?  
a) Container    b) JPanel    c) JFrame    d) Component
5. The \_\_\_\_\_ specification defines an application programming interface for communication between the server and the application program.  
a) JDBC    b) Java Applet    c) Java Servlet    d) Java Swing

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

**(K2)**

6. Define Arrays.
7. Interpret about Packages.
8. Explain Applet.
9. Define JMenus.
10. What is Servlet?

**SECTION – B**

**(5 X 4 = 20 MARKS)**

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

11. a) Describe the data types in Java.

**(OR)**

- b) Interpret decision making statements with example.

- 12.a) Assess the multithreaded programming with example.

**(OR)**

- b) Examine the errors and exceptions in Java.

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

13.a) Describe applet initialization and termination.

(OR)

b) Explain about the graphics class with example.

14.a) Interpret combo boxes in swing.

(OR)

b) Assess the Icons and labels in swing.

15.a) Find out the reasons to use Java servlets.

(OR)

b) List the applications of Java servlet.

**SECTION - C**

**(4 X 10 = 40 MARKS)**

**ANSWER ANY FOUR OUT OF SIX QUESTIONS**

**(16<sup>th</sup> QUESTION IS COMPULSORY AND ANSWER ANY THREE QUESTIONS**

**(FROM Qn. No : 17 to 21)**

**(K4 (Or) K5)**

16. Summarize looping statements in Java with example.

(K5)

17. Analyze the various types of operators in Java.

(K4)

18. Discuss in detail inheritance and its types.

(K5)

19. Examine the introducing graphics in applet programming with example.

(K4)

20. Determine the swing buttons with example.

(K5)

21. Give an outline on Java servlet architecture.

(K4)

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