

(FOR THE CANDIDATES ADMITTED

SUBJECT CODE **24 UBC 412**

DURING THE ACADEMIC YEAR 2024-25 ONLY)

REG.NO.

N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI
END-OF-SEMESTER EXAMINATIONS : MAY– 2026

B.C.A.

MAXIMUM MARKS: 75

IV SEMESTER

TIME : 3 HOURS

PART – III
JAVA PROGRAMMING

SECTION – A

(10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.

(K1)

1. Which operator is used for object reference comparison?

- a) = b) equals() c) = d) instanceof

2. Which class is used to create a thread?

- a) Object b) Runnable c) Thread d) System

3. Which method is used to draw a line in Graphics class?

- a) drawRect() b) drawOval() c) drawLine() d) drawArc()

4. Which class is used to display text in Swing?

- a) JLabel b) JTextField c) JButton d) JTextArea

5. Servlets run on

- a) Client machine b) Web browser c) Application server / Web server d) JVM only

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES

(K2)

6. What is a Vector?

7. State the role of finally block in exception handling.

8. How many arrays are required to draw a polygon?

9. Write the difference between CheckBox and RadioButton.

10. List any two real world applications of servlets.

SECTION – B

(5 X 5 = 25 MARKS)

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

(K3)

11. a) Outline various types of operators and expressions.

(OR)

b) Develop a Java program to find the largest and smallest element in the array.

(CONTD 2)

12. a) Illustrate multithreading
(OR)
b) Demonstrate 'try', 'catch' and 'finally' blocks.
13. a) Explain the Graphics class with example.
(OR)
b) Illustrate how to draw lines and rectangles are drawn.
14. a) Discuss about Icons and Labels in Swing.
(OR)
b) Elucidate about JComboBox and JTabbedPane.
15. a) Explain how does Servlet efficiently handle client requests in server-side
(OR)
b) Write difference between Servlet and CGI.

SECTION – C

(5 X 8 = 40 MARKS)

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

16. a) Develop a program to find the factorial of a give number. Create conditions with appropriate messages when user gives wrong input (i.e. Negative values).
Explain how branching and looping statements work in this program.
(OR)
b) Illustrate the concept of strings. Differentiate String and StringBuffer.
17. a) Explain the types of inheritance
(OR)
b) Discuss about the thread life cycle.
18. a) Elucidate the Applet life cycle and the methods.
(OR)
b) Develop a Java program to draw a smiley using Graphics class.
19. a) Explain about the swing components.
(OR)
b) Create a simple calculator for addition, subtract, multiplication and division using Swing.
20. a) Discuss about the Java Servlet architecture.
(OR)
b) Develop a Servlet program to demonstrate the client and server request and response.
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