

**FOURTH SEMESTER B.Sc. DEGREE EXAMINATION, APRIL 2025**

**(Regular/Improvement/Supplementary)**

**COMPUTER SCIENCE & MATHEMATICS (DOUBLE MAIN)**

**GDCS4A02T: JAVA PROGRAMMING**

**Time: 2 ½ Hours**

**Maximum Marks: 80**

**SECTION A: Answer the following questions. Each carries *two* marks.**

**(Ceiling 25 marks)**

1. List out any four java versions.
2. What are the types of applets?
3. Write any two rules for defining an identifier.
4. List out selection statements in java.
5. Write an example for while loop.
6. Define the term class.
7. Write any two features of OOP.
8. Explain multithreading.
9. What is an event?
10. How to draw polygon in graphics with syntax?
11. What is the use of init() method?
12. Differentiate between throw and throws statement in java.
13. What is the role of JDBC driver manager?
14. How can you execute SQL queries in java database connection?
15. What do you mean by JSP?

**SECTION B: Answer the following questions. Each carries *five* marks.**

**(Ceiling 35 marks)**

16. Write a detailed note on exception handling in Java.
17. Write short notes on polymorphism and modularity.
18. Explain about packages in java.
19. Differentiate thread and process.
20. Explain any four methods in graphics class.
21. Compare applet and applications.
22. Explain the features of Java.
23. What is Java Servlet? Explain its features and advantages.

**SECTION C: Answer any *two* questions. Each carries *ten* marks.**

24. With a neat diagram, explain the JVM architecture.
25. Briefly explain the operator in java.
26. A) What are layout managers? Explain its features.  
B) How to draw lines and rectangles? Explain with example.
27. What is JDBC? Explain the steps in connecting and accessing databases using JDBC.

**(2 x 10 = 20 Marks)**