

**Inter Institutional Computer Centre (MCA)**  
**An Autonomous department of**  
**Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur**  
**ADVANCED JAVA MCA-I Sem-I - 2022-23 (Assignment)**

**Write in a separate copy and submit it before 20/02/2023.**

**UNIT-1**

1. Explain the different features of Java.
2. Explain the platform independency using Java.
3. How Java supports object oriented methodology? Explain all aspects with suitable example.
4. Explain different data types in Java?
5. Explain simple if, if...else, ifElse ladder, switch..case statement in Java with example.
6. Explain different looping statements in Java with example.
7. What is scope of a variable? Explain.
8. Explain operators in Java.
9. What are access specifiers? Explain with suitable example various access specifiers in Java.
10. Distinguish between i) Object & Classes ii) Inheritance & Polymorphism iii) Dynamic binding and message passing
11. Explain JVM and execution routine of Java program.
12. What is constructor in Java? Explain overloaded and parameterized constructor.
13. Explain the use of *this* keyword with example.
14. What is inheritance? Explain how we implement single and multilevel inheritance in Java with example.
15. Describe three uses of final with suitable example.
16. What is thread in Java? Explain
17. Explain life cycle of thread?
18. What is multithreading in Java? What are the advantages of multithreading?
19. Explain the two ways to create a class that can be multithreaded
20. What is an array? How to declare array? Explain different types of array in Java.
21. Explain method overloading and method overriding with example.
22. Differentiate between multiprocessing and multithreading. What is to be done to implement these in a program?
23. Explain **isAlive()** and **join()** method with example.