

**DEPARTMENT OF COMPUTER APPLICATIONS**  
**BHILAI INSTITUTE OF TECHNOLOGY, DURG**  
**MCA-2<sup>ND</sup> SEMESTER**  
**SUBJECT: JAVA PROGRAMMING**

**ASSIGNMENTS**

1. Explain the following terms of Object Oriented Programming with an example
  - a. Data Abstraction
  - b. Class
  - c. Object
  - d. Encapsulation
  - e. Inheritance
  - f. Polymorphism
2. Justify with a suitable example that JAVA is a platform-independent language.
3. Justify your answer with an example code that JAVA String class objects are immutable.
4. How the method **overloading** is different from method **overriding**? Justify your answer with an example.
5. **Why the public** variables violate the principle of encapsulation in oops concept? Justify your answer with some example code.
6. Describe the significance of **protected** modifier in inheritance with an example code.
7. How the **private** modifier is different from **protected** modifier? Give some example to justify your answer.
8. Write short notes on: (1) final (2) package (3) class path (4) StringBuffer