**Class 10 Chapter 1**

**Introduction to object oriented programming concept**

**A. Tick (✓) the correct answer.**

1. Which of the following is not a principle of OOP?
   * **d. Class** (✓)
2. Which of the following are the advantages of polymorphism?
   * **c. Both a and b** (✓)
3. Which of the following principles of OOP allows the concept of reusability?
   * **a. Polymorphism** (✓)
4. Which of the following is the main element of object-oriented programming?
   * **a. Object** (✓)
5. Procedural programming splits the programming code into small parts called:
   * **a. Procedures** (✓)

**B. Fill in the blanks.**

1. A **paradigm** is a way of programming.
2. **Procedure-oriented programming (POP)** has global data sharing of functions.
3. **A Low-level** language is a programming language that is machine-dependent.
4. The concept of **inheritance** is a good feature for avoiding data redundancy.
5. Java is an example of **object-oriented** programming language.

**C. Short Answer Type Questions.**

1. **What is the use of inheritance?**
   * Inheritance allows one class to acquire the properties and behavior of another class. It promotes code reusability and helps in reducing redundancy.
2. **What does POP stand for?**
   * POP stands for **Procedure-Oriented Programming**.
3. **Define polymorphism with a real-life example.**
   * **Polymorphism** means "many forms." It allows a method to perform different tasks based on the object calling it.
   * **Example:** A single function area() can calculate the area of a circle, rectangle, or triangle depending on the arguments passed to it.
4. **What are the disadvantages of Procedure-Oriented Programming?**
   * Data is not secured as it is globally accessible.
   * Code reusability is difficult.
   * Large programs become difficult to manage.
   * Does not support real-world modeling.
5. **What are the differences between POP and OOP?**

| **Feature** | **POP (Procedure-Oriented Programming)** | **OOP (Object-Oriented Programming)** |
| --- | --- | --- |
| Approach | Focuses on functions | Focuses on objects |
| Data Access | Data is globally accessible | Data is secured using encapsulation |
| Code Reusability | Low | High due to inheritance |
| Example Languages | C, FORTRAN | Java, C++ |