

Class 9 chapter 3(2026-27)

Elementary concept of object and class

✓ A. Tick (✓) the correct answer

1. A class consists of _____ and behaviour which are used to create objects.

- a. Characteristics
- b. blueprint
- c. function
- d. methods

Answer: a. Characteristics ✓

2. _____ primitive data types are _____.

- a. int, double
- b. int, class
- c. interface, array
- d. interface, object

Answer: a. int, double ✓

3. Another class is also called an/a _____.

- a. object
- b. Java
- c. class
- d. Access specifier

Answer: c. class ✓

4. What is class in Java?

- a. A runtime instance of an object
- b. A template or blueprint to create objects
- c. A method to execute specific logic
- d. A collection of unrelated methods

Answer: b. A template or blueprint to create objects ✓

5. _____ defines the properties or state of an object.

- a. Data members
- b. Methods
- c. Both a and b
- d. None of these

Answer: a. Data members ✓

6. _____ is used to invoke methods and pass messages between objects.

- a. hash operator (#)
- b. dot operator (.)
- c. comma operator (,)
- d. asterisk operator (*)

Answer: b. dot operator (.) ✓

✓ B. Fill in the blanks

1. _____ occurs when an object calls the method of another object.

Answer: Message passing

2. Memory space is allocated when an _____ is created.

Answer: object

3. _____ contains data members and methods.

Answer: Class

4. The state of an object is represented by the _____ of that object.

Answer: data members

5. A class acts as a _____ as by using it similar types of objects are created.

Answer: blueprint

6. Refer a class structure as shown below.

Class subject

{

```
String name
book_name
getData()
setData()
}

Subject obj1 = new subject();
```

Fill in the blanks:

a. _____ is the characteristic of the class that starts with letter 's'.

Answer: subject

b. book_name is _____ of the class.

Answer: data member (attribute)

c. _____ and _____ are the common behaviour of the objects of class 'subject'.

Answer: getData() and setData()

d. Name of class is _____.

Answer: subject

e. Name of the object is _____.

Answer: obj1

f. To create the object computer, we use _____ keyword.

Answer: new

✓ C. Answer the following questions

1. In real world, if "Car" is a class, then name some objects in it.

Answer:

Objects: Maruti, Hyundai, Honda, Tata

2. List the components of classes.

Answer:

- Data members
- Methods

3. How do you define instance of a class?

Answer:

An instance of a class is called an **object**.

4. How are objects created?

Answer:

Objects are created using the **new** keyword.

Example:

```
ClassName obj = new ClassName();
```

5. What is Message passing in Java objects?

Answer:

Message passing means calling a method of one object using another object.

6. Write a short note on objects.

Answer:

An object is an instance of a class. It represents real-world entities and contains data and methods.

7. Why is class called a blueprint?

Answer:

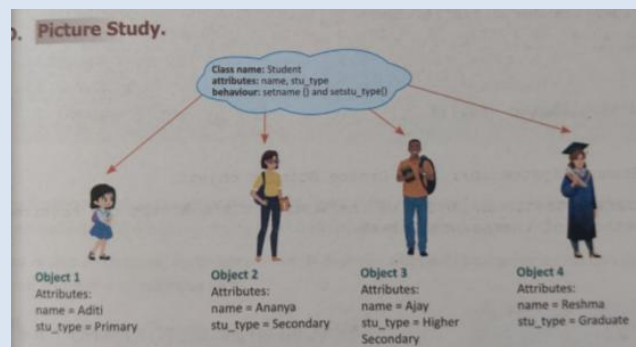
Because it defines structure and behaviour to create objects.

8. Justify the statement: “Classes are also known as user-defined data type.”

Answer:

Classes allow users to define their own data structures using variables and methods, so they are called user-defined data types.

✓ D. Picture Study



1. What is the name of the class?

- a. Student
- b. Ldati
- c. Ajay
- d. Reshma

Answer: a. Student ✓

2. Name the attributes of the class.

- a. name
- b. std_type
- c. both a and b
- d. Both b and c

Answer: c. both a and b ✓

3. Name of methods.

- a. setStu_type()
- b. setStu()
- c. setName()
- d. Both a and c

Answer: d. Both a and c ✓

4. What is the value of stu_type attribute of object 3?

- a. Primary
- b. Secondary
- c. Higher Secondary
- d. Graduate

Answer: b. Secondary ✓

✓ E. Case Study

1. A user-defined data type is same as _____.

- a. primitive data type
- b. derived data type
- c. explicit data
- d. implicit data

Answer: b. derived data type ✓

2. Each class is made up of _____.

- a. data members
- b. predefined data types
- c. attributes
- d. all of these

Answer: d. all of these ✓

Class 9 chapter 3(2025-26)

Elementary concept of object and class

A. Tick (✓) the Correct Answer

1. A class consists of ____ and behavior which are used to create objects.
 - a. characteristics (✓)
2. Examples of data types are
 - a. int, double (✓)
3. Instance of a class is also called an/a
 - a. Object (✓)
4. Mainframe computer is an object of
 - b. computer (✓)
5. A class is a ____ data type.
 - b. User-defined (✓)
6. The parts of an object are

- **d. All of these (✓)**

B. Fill in the Blanks

1. An **object** is also called an instance of a class.
2. A class is a **blueprint** of objects.
3. A class **contains** data members and methods.
4. The state of an object is represented by the **attributes** of that object.
5. A class acts as a **template** as by using it similar types of objects are created.

With reference to the given class declaration:

```
class Subject
{
    String subName;
    void getData();
    void showData();
}
Subject computer = new Subject();
```

- a. **subName** is the characteristic of the class that starts with the letter "s".
- b. **bookName** is an attribute of the class.
- c. **getData()** and **showData()** are the common behaviors of the objects of class "Subject".
- d. Name of the class is **"Subject"**.
- e. Creating **multiple** objects of the class is possible.
- f. Name of the object is **"computer"**.
- g. To create the object computer, we use **the "new"** keyword.

C. Short Answer Type Questions

1. In the real world, if "Car" is a class, then name some objects of it.
 - Some objects of the "Car" class can be **Toyota, Honda, Ford, BMW, Tesla**.
2. Name some components of classes.
 - Components of a class include:
 - **Attributes (Data Members/Fields)**
 - **Methods (Functions)**
 - **Constructors**
 - **Objects (Instances of a Class)**

3. How do you define a class in Java?

- A class in Java is defined using the `class` keyword. Example:

```
class Car {
    String brand;
    int speed;

    void showDetails() {
        System.out.println("brand: " + brand + " speed: " + speed);
    }
}
```

4. How is an object an instance of a class?

- An object is an instance of a class because it is created based on the class's blueprint and holds actual values for the attributes defined in the class.

5. How is a class a user-defined data type?

- A class is a user-defined data type because it allows users to create their own data structures with attributes and behaviors instead of relying only on built-in types like `int` and `char`.

6. Write a short note on objects. Give examples.

- An object is an instance of a class, containing specific values of the attributes defined in the class.

- Example:

```
class Car {
    String brand;
    int speed;
}
```

```
Car myCar = new Car(); // "myCar" is an object of class "Car".
```

7. Why is a class called a factory of objects? Explain with two examples.

- A class is called a factory of objects because it acts as a blueprint from which multiple objects can be created.

- Example 1: Car Class → Objects: Toyota, Ford, BMW

- Example 2: Student Class → Objects: Rahul, Priya, Sameer

8. Justify the statement: "Classes are also known as user-defined data types."

- A class is a user-defined data type because it allows programmers to create their own structured data with attributes (variables) and behaviors (methods), unlike primitive data types like `int` or `char`.