

**Answer the following questions:**

**1. What is a class?**

Answer:

A class is collection of object that make a useful product or program.

**2. What is meant by object in Java?**

Answer:

An object is a small attribute or unit or element or part of entire world that having its own characteristic, behavior, status and color etc.

**3. Explain any three features of the Java Programming Language.**

Answer:

Characteristic of the Java Programming Language:

- Java is a simple language.
- Java is a platform independent language.
- Java is a robust language.
- Java is a distributed language.
- Java support multithreaded programming language.

**4. What do you mean by the term Polymorphism?**

Answer:

Polymorphism means "many forms", and it occurs when we have many classes that are related to each other by inheritance.

**5. Explain the structure of the Java program.**

Answer:

```
public class Hello
{
    public static void main(String[] args)
    {
        System.out.println("Hello Java");
    }
}
```

## Class-VIII-Chapter 8 - Introduction to Java & Blue J

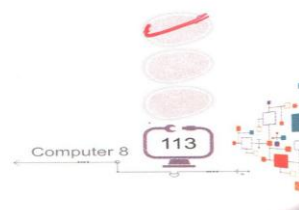
### Explanation:

public class Hello	<ul style="list-style-type: none"><li>• This creates a class called Hello.</li><li>• All class names must start with a capital letter.</li><li>• The public word means that it is accessible from any other classes.</li></ul>
/* Comments */	The compiler ignores comment block. Comment can be used anywhere in the program to add info about the program or code block, which will be helpful for developers to understand the existing code in the future easily.
Braces	Two curly brackets {...} are used to group all the commands, so it is known that the commands belong to that class or method.
public static void main	<ul style="list-style-type: none"><li>• When the main method is declared public, it means that it can also be used by code outside of its class, due to which the main method is declared public.</li><li>• The word <b>static</b> used when we want to access a method without creating its object, as we call the main method, before creating any class objects.</li><li>• The word <b>void</b> indicates that a method does not return a value. main () is declared as void because it does not return a value.</li><li>• <b>main</b> is a method; this is a starting point of a Java program.</li></ul>
String[] args	It is an array where each element of it is a string, which has been named as "args". If your Java program is run through the console, you can pass the input parameter, and main() method takes it as input.
System.out.println();	This statement is used to print text on the screen as output, where <b>the system</b> is a predefined class, and <b>out</b> is an object of the Print Writer class defined in the system. The method <b>println</b> prints the text on the screen with a new line. You can also use <b>print ()</b> method instead of println () method. All Java statement ends with a semicolon.



### A. Multiple Choice Questions

1. What does OOP mean?
  - (a) Object Oriented Programming
  - (b) Object Oriented Procedure
  - (c) Object Origin Program



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2. Which among the following feature is used to hide the complexity of data?  
(a) Abstraction  (b) Polymorphism  (c) Encapsulation
3. A single line comments begins with  
(a) \*  (b) #  (c) //
4. Which symbol denotes the end of a statement?  
(a) ;  (b) {  (c) }
5. What is BlueJ?  
(a) GUI  (b) IDE  (c) none of these

### B. Fill in the blanks.

1. Java can be used over all types of networks, so it is a distributed language.
2. BlueJ includes a debugger to help us find our mistakes.
3. A class is a collection of objects of similar type in the real world.
4. Polymorphism is the ability of a variable, function or object to take on multiple forms.
5. Compilation is a process of converting the programming statement to a machine level code by a computer.

### C. State True or False.

1. In an OOP language, a class can be derived from an object. false
2. The class keyword declares the program's name. True
3. Every Java statement must end with a colon. false
4. All Java programs begin by executing main () function. True
5. Polymorphism means taking many forms. True

### D. Write one word for the following.

1. Person who creates programming language. Programmer
2. A blueprint or prototype from which objects are created. class
3. The quality of dealing with ideas rather than events. Abstraction
4. It allows us define one interface or method and have multiple implementations. Polymorphism