

**BISHOP GEORGE SCHOOL & COLLEGE**  
**Worksheet No.1 (2021-2022)**  
**Class – 9<sup>th</sup>**  
**Subject – Computer Applications**  
**Chapter – Object Oriented Programming Concepts**

A computer is a versatile machine capable of performing different tasks, from simple mathematical operations to complex ones, and from simple designs to multimedia animations.

Do you think a computer can perform these operations on its own?

No, a computer cannot perform these functions on its own, but it needs **a set of instructions called programs, given by a programmer**. These programs are translated into machine codes by a translator (interpreter or compile). A program written in a human readable form is known as **Source Code**, whereas the program converted by the translator into a code that a computer understands is known as **Object Code**.

The language used to write these instructions are called programming language, and the person who creates these programs is known as a programmer.

**Object-Oriented Programming (OOP)** :- As the name suggests, Object Oriented Programming or OOP refers to languages that uses objects in programming. Object oriented programming aims to implement real-world entities like inheritance, hiding etc. in programming. The main aim of OOP is to bind together the data and the functions that operate on them so that no other part of the code can access this data except that function.

**Object-Oriented Programming (OOP) Concepts :**

- Class
- Object
- Abstraction
- Encapsulation
- Inheritance
- Polymorphism
- Message Passing

## Exercise

### 1 Fill in the blanks

1. A program written in human readable form is known as **Source code**.
2. **Object code** or machine code understands by the computer.
3. OOP stands for **Object-Oriented Programming**.
4. **Translator** translated the high level (source code) into machine code (object code) vice-versa.
5. OOPs aim to implement **real-world** entities.

### 2 Answer the following :

1. What is Object-Oriented Programming (OOP)?

**Ans.** Object Oriented Programming or OOP refers to a language that uses objects in programming. Object oriented programming aims to implement real-world entities like inheritance, hiding etc. in programming.

2. Write the main features of OOP language?

**Ans.** Main Principles of OOP language are-

- Class
- Object
- Abstraction
- Encapsulation
- Inheritance
- Polymorphism
- Message Passing