

FEATURES OF OOP 1.Object 2.Class 3.Data Hiding and Encapsulation 4.Dynamic Binding 5.Message Passing 6.Inheritance 7.Polymorphism

Brief Explanation of Points:

OBJECT: Object is a collection of number of entities. Objects take up space in the memory. Objects are instances of classes. When a program is executed , the objects interact by sending messages to one another. Each object contain data and code to manipulate the data. Objects can interact without having know details of each others data or code.

CLASS: Class is a collection of objects of similar type. Objects are variables of the type clas. Once a clas has been defined, we can create any number of objects belonging to that clas. Eg: grapes bannans and orange are the member of clas fruit.Example:Fruit orange;In the above statement object mango is created which belong to the clas fruit.

NOTE: Classes are user define data types.

DATA ABSTRACTION AND ENCAPSULATION:Combining data and functions into a single unit called clas and the process is known as Encapsulation.Data encapsulation is important feature of a clas. Class contains both data and functions. Data is not accessible from the outside world and only those function which are present in the clas can access the data. The insulation of the data from direct access by the program is called data hiding or information hiding. Hiding the complexity of proram is called Abstraction and only essential features are represented.In short we can say that internal working is hidden.

DYNAMIC BINDING: Refers to linking of function call with function defination is called binding and when it is take place at run time called dynamic binding.

MESSAGE PASSING: The process by which one object can interact with other object is called message passing.

INHERITANCE: it is the process by which object of one clas aquire the properties or features of objects of another clas. The concept of inheritance provide the idea of reusability means we can add additional features to an existing clas without Modifying it. This is possible by driving a ne clas from the existing one. The ne clas will have the combined features of both the classes.Example: Robine is a part of the clas flying bird which is again a part of the clas bird.

POLYMORPHISM: A greek term means ability to take more than one form. An operation may exhibite different behaviours in different instances. The behaviour depends upon the types of data used in the operation.Example:Operator Overloadin func Overloading