BRS GLOBAL SCHOOL
Affiliated to CBSE, New Delhi, Affiliation No. 830346

Subject: Computer Science

Chapter – 9

Introduction to C++

Class: X

Date:

A. Fill in the blanks:

1. Object
2. Class
3. Encapsulation
4. Data Abstraction
5. Child class
6. Attributes, Behaviour
7. Methods

B. State True or False:

1. False
2. True
3. True
4. True
5. False
6. False
7. True
8. False

C. Multiple Choice Questions:

1. (a) Characteristics
2. (a) Class

3. (a) Method overriding

4. (b) Inheritance

5. (b) Super class

6. (c) Polymorphism

7. (c) Data abstraction

D. Answer in one word or sentence:

1. It is the process of using a function for more than one purpose

2. Bjarne Stroustrup

3. //

4. Object Oriented Programming

5. Program execution begins with main() function.

6. void keyword indicates that the program will not return any value.

7. cout statement is used to print any message on the screen.

8. #include<iostream.h>

E. Answer the following:

1. C++ is a very popular Object Oriented Programming language. It is an extension of C language. Its applications are:
   a) It is a versatile language for handling *v*ery large programs.
   b) C++ programs can be managed and expanded.
   c) It gives the ability to get closer to the machine level details.
   d) It is primarily used for developing system/application software, drivers, client-server applications, etc.

2. An object is a real-world entity that has two things: Attributes and Behaviour. Attributes describe the object's properties and the behaviour describes what the object does.

   For example, car is an object. It transports people to different locations by controlling its speed and direction. It has a switch to turn it on, a steering to control its direction, an accelerator to increase or decrease its speed. These functions control the car's data that is the direction, the position and the speed. All these functions and data work together to define the object called a car.

3. A class is a template of similar types of objects that share the common behaviour. Once a class is created, users can create any number of objects of that class. It creates objects that have the same properties and common behaviors. Therefore, a class is called a factory of objects.
4. Inheritance is a process by which a class acquires the properties of another class. In

programming, classes can inherit the features of parent classes. it allows the re usability of the code. Once a code has been defined in the parent class, it can be used by child class.

5. Data abstraction means data hiding. It is the concept of hiding unnecessary details and representing only the very essential features. For example, the details of structures and circuits of a cell phone is hidden and only essential components, like numbers, call, end, clear, message buttons are available to us.
6. The process of combining data and functions into a single unit is called encapsulation. Objects with similar attributes and behaviour are grouped into a class. For example, a cell phone has its features, like size, shape, different ring tones, memory space, messages, etc. It has its own behavior, like send and receive calls and messages, games, etc. Thus, its attributes and behaviour are bound in one unit that is cell phone.

7.

C	C++
1. C is a procedural programming language.	1. C++ is a procedural and object oriented language.
2. It cannot run C++ codes.	2. It can run most of the C codes.
3. Reusability of existing code is difficult in C.	3. It is easy to reuse the existing code in C++.
4. It does not support abstraction, encapsulation, polymorphism, and inheritance.	4. It supports abstraction, encapsulation, polymorphism, and inheritance.

8. Method overriding is a process of creating a new method in a child class to change the behaviour inherited from the parent class.

LAB ACTIVITY

1.
```
#include<iostream.h>
 #include<conio.h>
 void main()
{
 clrscr();
 cout<<"Welcome to the world of C++ programming";
 getch();
}
```

2.
```
#include<iostream.h>
 #include<conio.h>
 void main()
 {
  clrscr();
  cout<<" Kunal Kunal Kunal Kunal "<<endl;
  getch();
```

```
}
```

3.
```
#include<iostream.h>
 #include<conio.h>
 void main()
 {
 clrscr();
 cout<<"Be Good and Do Good"<<endl;
 cout<<endl; cout<<"Be Good and Do Good"<<endl;
 cout<<endl;
 cout<<"Be Good and Do Good"<<endl;
 cout<<endl;
 cout<<"Be Good and Do Good"<<endl;
 cout<<endl;
 cout<<"Be Good and Do Good"<<endl;
 cout<<endl;
 getch();
 }
```

4.
```
#include<iostream.h>
  #include<conio.h>
  void main()
 {
 clrscr();
 cout<<"To acquire knowledge, one must study; but to acquire wisdom, one must observe"<<endl;
 getch();
```