

Object Oriented Programming Using C++ (Revised)

[Time: THREE Hours]

[Max. Marks:80]

"Please check whether you have got the right question paper."

- N.B**
- 1) Q. 1 & Q.6 are compulsory.
 - 2) Solve any Two questions from each section from remaining.

SECTION A

- Q.1 Solve any five : 10
- a) What is the use of scope resolution operator (::) in C++.
 - b) What are the operators of C++ that cannot be overloaded?
 - c) How does constructor differ from normal functions?
 - d) What is the default access mode for class members?
 - e) What do you mean by cascading of I/O operators?
 - f) What is the structure of C++ program?
 - g) What will be the output of the following code?

```
For (int m=0;m<5;m++)
  Cout<<m;
```
 - h) What does the following program print out?

```
int m=1;
while(m<11)
{
  m++;
  cout<< m++;
}
```
- Q.2 Explain the following concepts of OOP in detail with an example. 15
- a) Data abstraction b) Inheritance c) Polymorphism d) Objects
- Q.3
- a) Write a C++ program to overload + & operator which perform the addition & subtraction of two 10 matrix of 3by3 respectively. 10
 - b) What do you mean by inline function? Explain with example. 05
- Q.4
- a) Describe the concept of call by value & call by reference with an programming example. 08
 - b) What is the significance of static members in C++? Explain with example. 07
- Q.5
- a) Explain the various types of constructor with an programming example. 10
 - b) Describe the concept of destructor with an programming example. 05
- SECTION -B
- Q.6 Solve any five : 10
- a) What is an I/O stream ?
 - b) What is the type of class for which objects cannot be created?
 - c) How to open and close file?
 - d) What is generic classes in templates ?
 - e) What is "this"?
 - f) What is container?
 - h) What is the difference between private and protected class members?
 - g) What do you mean by function? What is prototype of function?
- Q.7
- a) Define Inheritance .Explain multilevel inheritance with programming example? 10
 - b) Write short note on new and delete operators. 05

Q.8	a) Explain the concept of pure virtual function with example.	08
	b) Explain with example how can a class template be created.	07
Q.9	a) Write a C++ program to read a file name and display the content of file on screen.	08
	b) Explain I/O manipulators.	07
Q.10	a) Differentiate between static & dynamic binding with example.	10
	b) Write a program which explains the concept of single level inheritance.	05