Note: All Questions are Compulsory.

Q.1: Attempt Any Four From the Following:

(20 M)

- 1. How memory can be allocated for objects? Explain.
- 2. Give the difference between abstraction and Encapsulation.
- 3. How we can construct two dimensional array?
- 4. Explain different control structures available in C++.
- 5. Write a C++ program to print even and odd numbers between 1 to 100 in one program.
- 6. Write a note on Basic Data Type and User Defined Data type in C++.
- 7. What is parameterised constructor? List some properties of constructor.
- 8. Write functions with call by value and call by reference.

Q.2: Attempt Any Four From the Following:

(20 M)

- 1. Explain multiple and multilevel inheritance.
- 2. Write a C++ program to illustrate the concept of array of pointers to objects.
- 3. What is an abstract class? Give the proper programming example.
- 4. Write a C++ program to illustrate the concept of polymorphism.
- 5. Explain the difference between early binding and late binding.
- 6. When do we make a class virtual? Write a C++ program to show the use of virtual class.
- 7. Write a program to find mean value of two members with friend function by using nesting member function.
- 8. What are the rules for operator overloading?

Q.3: Attempt Any Four From the Following:

(20 M)

- 1. Explain following file stream classes: 1.ifstream 2.Ofstream 3.fstream
- 2. Explain try... and catch.. block with proper example.
- 3. Write a C++ program to show the use of function template.
- 4. What are the components of STL?
- 5. Write a C++ program for accepting the details name, code, and cost from user, store the details in a file and read the contents & display the details.
- 6. Explain write() and read() function.
- 7. Write a note on class template with multiple parameters.
- 8. What are the advantages of exception handling?

Q.4: Attempt Any Three From the Following:

(15 M)

- 1. Write a note on Destructor in C++.
- 2. Write a note on Type conversion.
- 3. Write a C++ program with command line argument of main function by passing array and storing into file.
- 4. Write a note on this pointer.
- 5. What is an abstract class?
- 6. Write a note on STL algorithm.