

[Time: 2.30 Hrs.]

[ Marks:75 ]

Please check whether you have got the right question paper.

- N.B:
1. All question are compulsory.
  2. Figures to the right indicate full marks.
  3. Students answering in the regional language should refer in case of doubt to the main text of the paper in English.

Q.1 Attempt **any three** of the following: 15

- a. What is Object Oriented Programming? State its benefits.
- b. State the advantages & Disadvantages of POP.
- c. Differentiate Procedure Oriented Programming & Object-Oriented Programming.
- d. Explain Classes and Objects with example.
- e. Explain the terms:
  1. Dynamic Binding
  2. Message Passing
- f. Write a brief note on: Data Abstraction & Encapsulation.

Q.2 Attempt **any three** of the following: 15

- a. What are classes? Explain with its Structure and example.
- b. What do you mean by Inside Class Definition? Explain with an example.
- c. Explain friend function with example. State its characteristics.
- d. Describe scope resolution operator in C++. Explain with example.
- e. What are Constructors? State its features.
- f. What do you mean by Parameterized constructor? Explain with example.

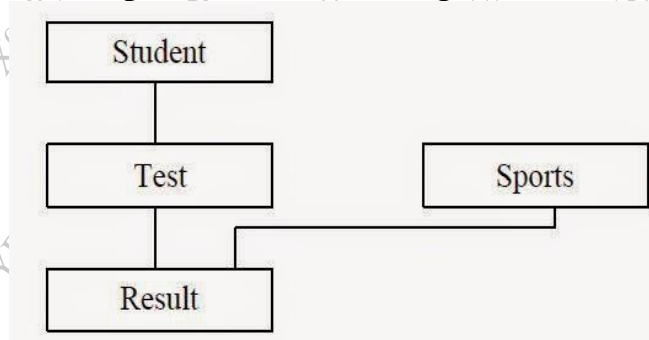
Q.3 Attempt **any three** of the following: 15

- a. Write a program in C++ to implement function overloading.
- b. What is operator overloading? State rules for operator overloading.
- c. Write a short note on Abstract Classes.
- d. Describe Static member functions with example.
- e. Explain the use of "this pointer" with example.
- f. Write a program to describe the use of the Copy constructor.

Q.4 Attempt **any three** of the following:

15

- What is Inheritance? List its types and state its advantages.
- Define an Exception. What is exceptional Handling? Explain with example.
- Write a program to implement the following:



- Write a program to implement multiple catch statements.
- Explain multiple Inheritance in detail.
- Write a short note on access specifiers.

Q.5 Attempt **any three** of the following:

15

- What are templates? Explain Class templates with example.
- What is file pointer? Explain Manipulator with its types.
- List various basic file operations.
- Differentiate between Binary files and Text files.
- Write a C++ program to copy the contents of one file to another.
- Explain Input and output Streams in C++.