

Seat No. : _____

NR-117

November-2017

S.Y. M.Sc. (CA & IT), (Integrated)

Object Oriented Programming with C++

Time : 3 Hours]

[Max. Marks : 100

1. Write the answer of following questions in brief : **20**
 - (1) Explain the main concepts of Object Oriented Programming.
 - (2) What is Constructor ? Explain parameterized constructor with example.
 - (3) What is an Exception ? Explain exception handling mechanism.
 - (4) What do you mean by Polymorphism ? Explain with example.

2. (a) Explain the following : [Any **Five**] **10**
 - (1) Explain fill() and precision() with example.
 - (2) Explain constructor in derived class.
 - (3) Explain Hybrid Inheritance.
 - (4) Explain Friend function.
 - (5) What is the use of Bool data type ?
 - (6) Describe insert() and replace() with example.
- (b) Explain following : [Any **Ten**] **10**
 - (1) Define Abstract class.
 - (2) List Object Oriented Programming applications.
 - (3) Explain new and delete operators.
 - (4) Give full form of RTTI.
 - (5) Describe the syntax of pure virtual function.
 - (6) Explain inline function.
 - (7) What is cout and cin ?
 - (8) What is a stream ?
 - (9) Describe scope resolution operator.
 - (10) Class XYZ : public A, public virtual B, public D. In which sequence constructor will be called ?
 - (11) Explain virtual function.

3. (a) Write the difference between following : [Any **Three**] **12**
- (1) Function overloading - Operator overloading.
 - (2) Structure in C–Class in C++.
 - (3) Runtime polymorphism – Compile time polymorphism.
 - (4) Object Oriented Programming – Procedure Oriented Programming
- (b) Write a short note on following : [Any **Two**] **08**
- (1) Namespace Scope.
 - (2) Userdefine Manipulators.
 - (3) 'this' pointer.
4. Write the answer of following questions in brief. **20**
- (1) What is Type conversion ? List and explain any one type of type conversion.
 - (2) What does inheritance mean in C++ ? Explain any two types of inheritance with example.
 - (3) What is File ? Discuss the various File mode options.
 - (4) Explain rethrowing exception with example.
5. (a) Write the answer of following questions in brief : [Any **Two**] **10**
- (1) Explain concept of Static data member and member function with example.
 - (2) Explain function Template .Write a function Template for swapping two values.
 - (3) What is an operator overloading ? Explain operator overloading with example.
- (b) Attempt any **one**. **10**
- (1) Write C++ program for writing some students data into the file. Now read the same file and display file content on screen.
 - (2) Write a function template for finding the sum of array elements.
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