

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER- IV EXAMINATION – SUMMER 2020****Subject Code: 2140705****Date: 27/10/2020****Subject Name: OBJECT ORIENTED PROGRAMMING WITH C++****Time: 10:30 AM TO 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks

- Q-1 (A) Write Benefits and Application of OOP. [ 3 ]  
(B) Write a program to generate the following series (using class fibo) : [ 4 ]  
1 1 2 3 5 8 .....  
(C) Explain basic structure of C++ program. [ 7 ]
- Q-2 (A) What is overloading of a function? Explain with an example. [ 3 ]  
(B) Explain parameterize constructor with example. [ 4 ]  
(C) Define Operator? Explain any three type of Operator in details. [ 7 ]
- OR**
- (C) Explain Principles of OOP in details. [ 7 ]
- Q-3 (A) Explain for loop with proper example. [ 3 ]  
(B) Explain inline function with example. [ 4 ]  
(C) Explain multiple inheritance with proper example. [ 7 ]
- OR**
- Q-3 (A) Explain “This” pointer. [ 3 ]  
(B) What is friend Function? Explain the characteristics of friend function. [ 4 ]  
(C) Define polymorphism explain compile time and run time polymorphism. [ 7 ]
- Q-4 (A) Define inheritance? List out the type of inheritance. [ 3 ]  
(B) Explain pure virtual functions in details. [ 4 ]  
(C) Explain call by value and call by reference with example. [ 7 ]
- OR**
- Q-4 (A) Explain Exception in C++ with example. [ 3 ]  
(B) Define pointer? Explain pointer and array with example. [ 4 ]  
(C) Define Destructor .How it is differ from constructor also write the difference between constructor and destructor. [ 7 ]
- Q-5 (A) Define Stream? Explain type of stream. [ 3 ]  
(B) What is a file mode? Describe the various file mode options available. [ 4 ]  
(C) Explain different stream classes for console I/O operations in C++. [ 7 ]
- OR**
- Q-5 (A) What is STL? How is it different from the C++ Standard library? [ 3 ]  
(B) Explain multiple catch with proper example. [ 4 ]  
(C) Explain Function and Class Templates with appropriate example. [ 7 ]