

Seat No _____

B.SC. (IT)
SEMESTER – III EXAMINATION

APRIL-2016

PAPER NO: 304 – OBJECT ORIENTED PROGRAMMING WITH C++

Durations : 2:30 hrs

4733

Total Marks: 70

- Q-1** (A) Distinguish between POP and OOP in detail. [7]
(B) Write short note: Benefits of OOP. [7]
- OR**
- Q-1** (A) Explain typical features of OOP in detail. [7]
(B) Explain Class and Object in detail. Give one suitable example. [7]
- Q-2** (A) Explain FRIEND function in detail. Give suitable example in support. [7]
(B) Define: Destructor. How it is useful in C++ programs. Give suitable example. [7]
- OR**
- Q-2** (A) Explain inline function in detail. Give suitable example in support. [7]
(B) Define: constructor. Give its types. Give suitable example for each. [7]
- Q-3** (A) Write short note: Operator overloading in C++. [7]
(B) Assume that CIRCLE is defined using radius and CYLINDER is defined using radius and height. Write a CLASS name CIRCLE base class inherits the CYLINDER class from it. Develop CLASS such that user can compute the area of CIRCLE objects and volume of CYLINDER objects. Area of CIRCLE is $\pi * \text{radius} * \text{radius}$ whereas volume of CYLINDER is $\pi * \text{radius} * \text{radius} * \text{height}$. [7]
- OR**
- Q-3** (A) Define a CLASS complex with real and imaginary as two data member, add necessary constructors and member function to initialize and display data of CLASS. CLASS should overload the + operator to add two complex objects and return the results. Invoke the statements like $C3=C1+C2$ in main (. [7]
(B) Explain Inheritance and its types in detail. [7]
- Q-4** (A) Describe visibility of Public, Private and Protected access specifiers in C++. [7]
(B) Write short note: Polymorphism. [7]
- OR**
- Q-4** (A) Explain pointer to the object using C++ program. Write short note: Polymorphism. [7]
(B) Create a class Account. It has three data member account id, name and balance. Define function to assign value and display value. Define function that search account number given by the user. If account number exists, print the detail of that account. Write a program using array of object. Declare at least 5 account and print details. [7]
- Q-5** (A) Explain in brief. 1. Pure Virtual Function 2. "this" pointer. [7]
(B) What is a stream? Describe various stream classes for console I/O operations [7]
- OR**
- Q-5** (A) Explain error handling mechanism in C++. [7]
(B) Explain various file mode parameters in C++. [7]