

Registration No:

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B.Tech.
PTX5H001

5th Semester Regular Examination 2017-18
C++ and Object Oriented Programming

BRANCH: TEXTILE

Time: 3 Hours

Max Marks: 100

Q.CODE: B540

Answer Question No.1 and 2 which are compulsory and any four from the rest.
The figures in the right hand margin indicate marks.

- Q1 **Answer the following questions: multiple type or dash fill up type** (2 x 10)
- a) You can use C++ as a procedural, as well as an object-oriented, language
a.True
b.False
c.May be
d.None of above
- b) Which of the following concepts of OOPS means exposing only necessary information to client?
a.Encapsulation
b.Abstraction
c.Data Hiding
d.Data binding
- c) Which of the following concepts provides facility of using object of one class inside another class ?
a.Encapsulation
b. Abstraction
c.Composition
d.Inheritance
- d) Which of the following statement is correct?
a.A constructor is called at the time of declaration of an object.
b.A constructor is called at the time of use of an object .
c. A constructor is called at the time of declaration of a class.
d.A constructor is called at the time of use of a class.
- e) Which constructor function is designed to copy objects of the same class type?
a.Create constructor
b.Object constructor
c.Dynamic constructor
d.Copy constructor
- f) A function with the same name as the class, but proceeded with a tilde character (~) is called _____ of that class.
a.Constructor
b.Destructor
c.Function
d. Object
- g) A pure virtual function is a function that:
a.has no body
b.returns nothing
c.is used in a base class
d.takes no argument
- h) A derived class _____.
a.Inherits data members and member functions from base class. b.Inherits constructors and destructors.

- c. Object can access protected members with the dot operator.
- d. None of the above.
- i) Concept of polymorphism is implemented using
 - a. Function overloading
 - b. Operator overloading
 - c. A & B only
 - d. A only
- j) _____ class provides the basic support for formatted and unformatted I/O operations.
 - a. ios
 - b. istream
 - c. streambuf
 - d. ostream

- Q2 Answer the following questions: Short answer type (2 x 10)**
- a) With respect to C++ distinguish object from class.
 - b) Define abstraction and encapsulation.
 - c) What is virtual base class ?
 - d) Briefly explain about dynamic binding.
 - e) List the operators that cannot be overloaded.
 - f) What is a scope resolution operator?
 - g) How the member function is defined.
 - h) Differentiate between throw and throws.
 - i) What is the purpose of STL ?
 - j) What are I/O streams? Give an example.
- Q3 a) Explain the characteristics of OOPS in detail. (10)**
b) Write a C++ program to find factorial of a number. (5)
- Q4 a) Explain the constructor and destructor in detail with example program. (10)**
b) Illustrate the concept of function overloading to find maximum of two numbers. (5)
- Q5 a) What are the rules of operator overloading? Use operator overloading methods for addition and subtraction. (10)**
b) Write a note on inline function with illustrations. (5)
- Q6 a) Explain run time polymorphism with example program. (10)**
b) Illustrate the concept of static data member in C++ (5)
- Q7 a) With suitable diagrams and examples explain various types of inheritance. (10)**
b) Explain the use of abstract class in C++. (5)
- Q8 a) Describe about exception handling with suitable example. (10)**
b) What are the disadvantages of exception handling. (5)
- Q9 a) Write explanatory notes on following: (10)**
A .String handling in C++
B .Type conversion
C . Friend function
D . Iostream Library
- b) List the major categories of containers supported by Standard Template Library . (5)**