

322415 (22)BE (4th Semester)

Examination, Nov.-Dec., 2014

Branch : CSE, IT

**OBJECT ORIENTED CONCEPTS &
PROGRAMMING USING C++***Time Allowed : Three Hours**Maximum Marks : 80**Minimum Pass Marks : 28*

Note : All the questions are equal number. Attempt any two parts from b, c, d. Part (a) is compulsory.

- Q. 1.** (a) Define inline function with syntax. 2
- (b) What are the various operators available in C++. Describe the operators which were not available in C. 7
- (c) How object oriented programming language (OOPL) is differ from procedure oriented

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programming language (POPL) ? Write basic concepts and benefits of OOPS. 7

- (d) Explain function overloading. Illustrate a program to overload MULT () to find multiplication of : 7

- (i) Two integer values
- (ii) Three floating values
- (iii) Two integer and two floating values.

- Q. 2.** (a) What do you mean by data hiding. 2
- (b) What is the difference between static data member and static member function ? Explain with example. 7
- (c) Write a program to add two time formats (x hour and y minute and z second).
Derive the C++ code to demonstrate it with object as function argument. 7

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(d) Explain friend function. Write a program to find average values of 3 numbers declared as the private data member of 3 different classes. 7

(a) What do you mean by destructor. 2

(b) Explain binary operator overloading with friend function. 7

(c) What is constructor? Explain dynamic constructor with example. 7

(d) Write a program in C++ to convert a data of basic data type to class type and class type to basic type. 7

4. (a) What is abstract class? 2

(b) What are the various type of inheritance? Explain hybrid inheritance with the help of example. 7

(4)

(c) What do you mean by pointer to object? Explain this pointer with an example.

(d) Differentiate virtual function & pure virtual function. Explain with an example.

Q. 5. (a) What is exception in oops.

(b) Explain the following file handling function with proper syntax (any four).

(c) Explain the use of eof () and open () function in file handling using suitable example.

(d) What is class template? Demonstrate the use of vector class template for performing the scalar product of integer type vector.