

MCA / PGDCA 2ND SEMESTER EXAMINATION 2013

PAPER : VII

OPP THROUGH C++ (THEORY)

Time : 2 Hrs.

Full Marks : 50

1. Answer the following questions 2×5 = 10
- (a) What is object oriented programming?
 - (b) What is a reference variable?
 - (c) What is type casting?
 - (d) What is the function of conditional expression?
 - (e) How are the structures and arrays different?
2. Answer any three from the following : 4×3 = 12
- (a) How does procedure oriented programming differs from the OOP approach?
 - (b) What do you mean by scope of variable? Explain with examples.
 - (c) What do you mean by function overloading? Explain with

examples.

- (d) What is a class ? How is a member function defined outside a class? Give example.
- (e) What is inheritance ? By giving example explain base class and 'derived class'.

3. Answer any three from the following : $6 \times 3 = 18$

- (a) Differentiate between the following loop statements by giving proper example
'While and 'Do while'
- (b) Explain about the parameter passing techniques found in C++ by giving suitable example.
- (c) What are the friend functions? How are they declared? Explain with example.
- (d) What is a constructor ? Explain by giving example. How it is differ from a destructor?
- (e) Write a C++ program to demonstrate the multilevel inheritance.

4. Answer any one question from the following :

$$10 \times 1 = 10$$

- (a) Explain the use of private and public keywords in a class. How are they different? Define a class 'Book' which has Book name (Char Book Name [50] and price [float]). Define a default constructor member functions get_data () For taking the name of the books and price and print() function for displaying the data of Books.

(2)

- (b) Write down the advantage of operator overloading. Write a program to overload the binary operator 't' in order to perform addition of complex numbers.
- (c) Write a C++ program involving appropriate type of inheritance which will inherit two classes 'triangle' and 'rectangle' from 'polygon' class. Use member functions for entering appropriate parameter like with, height etc. and to calculate the area of triangle and rectangle.

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(3)