



RF-4814

M. C. A. (Sem. III) (ATKT) Examination
April / May – 2010
Paper - 304 : Object Oriented Programming
Methodology

Time : 3 Hours]

[Total Marks : 70

Instructions :

1) नीचे दशांशके निशानीवाणी विगतो उत्तरवडी पर अवश्य लपवी.
Fillup strictly the details of signs on your answer book.

Name of the Examination :
M. C. A. (Sem. 3) (ATKT)

Name of the Subject :
304 : Object Oriented Programming Methodology

Subject Code No. : **4 8 1 4** Section No. (1, 2,.....): **Nil**

Seat No. :

Student's Signature

1 Attempt any two:- 14

- (a) Explain abstraction and encapsulation as characteristics of object oriented languages. How these characteristics are supported by C++?
- (b) Explain cin and cout. Discuss stream class hierarchy in C++.
- (c) What is reference variable? Explain call by reference in C++ with proper example.

2 Attempt any two: 14

- (a) Define polymorphism. Explain run-time polymorphism.
- (b) What is virtual base class? Give an example to explain usage of virtual base class.
- (c) Explain templates in C++ giving proper example.

3 Attempt any two:- 14

- (a) Explain friend function class in C++.
- (b) What is inline function? Explain advantages and limitations of inline function.

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[Contd...

(c) Explain function overriding and function overloading.

4 Do as directed:- 14

(a) Write a program in C++ to overload '+' operator for string concatenation.

(b) Define destructor. Write a program in C++ to illustrate usage of destructor.

5 Attempt any two:- 14

(a) Define manipulators. How can you create and use user define manipulators ?

(b) Explain new and delete operator. Differentiate new and malloc () function.

(c) Describe multiple and multi level inheritance with suitable examples.
