

**M.C.A.(Previous) DEGREE EXAMINATION, MAY 2006
PAPER - II - PROGRAMMING WITH C++**

Time: Three hours

Maximum: 75 marks

**SECTION A - (3 X 15 = 45 marks)
Answer any THREE of the following**

1. (a) What is 'call by value' and 'call by reference'? Explain each with an example. (7)
(b) Write a C++ program to multiply two matrices. (8)
2. (a) What is overloading and overriding? Explain with an example. (7)
(b) Write about any five string library functions along with system and usage. (8)
3. (a) What are Virtual functions and Abstract classes? Explain with an example. (8)
(b) What are pointers and dynamic arrays? Explain with an example. (7)
4. (a) What are class templates and function templates? Differentiate with an example
(b) Write C++ program explaining binary search.
5. (a) Explain about various conditional statements in C++ with an example. (7)
(b) Write a program to overload ++ operator. (8)
6. (a) Explain what is the use of copy constructor with the example. (7)
(b) Explain what is object oriented concepts are available in C++. (8)

**SECTION - B - (5 X 5 = 25 marks)
Answer any FIVE of the following**

7. Write a C++ program to find the area of a triangle given three sides a, b, c by validating sides.
8. Write a C++ program for bubble sort.
9. Discuss about continue and break statements in C++ and differentiate.
10. Write a program using functions to find permutation function $P(n, k) = \frac{n!}{(n-k)!}$
11. What are static data members and static member functions? Explain.
12. Write a program to append a string to another string.
13. What is iterator class? Explain with an example.
14. List and explain about any four library functions of mathematical and string each.

**SECTION C - (5 X 1 = 5 marks)
Answer any ALL of the following**

15. What is inline function?
16. What is the difference between reference and pointer variable?
17. What is protected data?
18. What is composition?
19. What is vector? Give an example.
