



--	--	--	--	--	--	--	--	--	--

**P.E.S. College of Engineering, Mandya - 571 401**  
*(An Autonomous Institution affiliated to VTU, Belgaum)*  
**Sixth Semester, B.E. - Electronics and Communication Engineering**  
**Make-up Examination; July - 2016**  
**Programming in C++**

Time: 3 hrs

Max. Marks: 100

*Note: i) Answer FIVE full questions, selecting ONE full question from each unit.  
 ii) Assume missing data suitably.*

**UNIT - I**

- 1 a. What is a pointer? Give example. Mention common uses of pointers. 6
- b. List the sorts of operations performed from string class. Write a program in C++ to copy one string to another string without using standard library function. 8
- c. Write a program in C++ to accept an array of 5 integers and display the addition of array elements. 6
- 2 a. What is increment and decrement operator? Give example for each. 6
- b. List and explain the function of any four bit set operator. 8
- c. Discuss bitwise operator. Give example for each. 6

**UNIT - II**

- 3 a. What are the three methods for performing loop operation in C++? Explain them with the syntax and an example. 9
- b. What is dynamic memory allocation? Give example. List the differences between static and dynamic memory allocation. 6
- c. Explain pre-processor directive. Give example. 5
- 4 a. What is function prototype? Give example. 6
- b. Write a program that uses call by reference method to call the ADD and MUL function to output the sum and the product of the two given numbers. 8
- c. Define recursive function. Find the factorial of a given number using recursive function. 6

**UNIT - III**

- 5 a. Find the minimum of two integers using inline function. 6
- b. Explain function overloading. Give example. 6
- c. Define class. With example explain different access specifiers used in C++. 8
- 6 a. Define class and object. How the data members are declared and accessed? Give an example. 8
- b. What is a constructor? Give example. 4
- c. Explain class object arrays and vectors. Give example. 8

**UNIT - IV**

- 7 a. Describe public, private and protected inheritance? Give example. 10  
b. Explain the ambiguity in multiple inheritances. Give example. How it can be overcome? 10
- 8 a. What is operator overloading? Write a program in C++ to overload operator ++ for both prefix and postfix. 10  
b. Explain overloaded operator *new* and *delete*. Give example for each. 10

**UNIT - V**

- 9 a. What is exception handling? With the help of example explain try, through and catch mechanism in C++. 10  
b. Describe exception specification. Give example. 10
- 10 a. What is an exception? With example explain how try and catch block works. 10  
b. What is abstract class? Give example. 6  
c. What is *this* pointer? Give example. 4

\* \* \* \*