FACULTY OF ENGINEERING AND INFORMATICS
B.E. I – Year (Main) Examination, June 2014

Subject : Programming in C & C++

Time : 3 hours   Max. Marks : 75

Note: Answer all questions from Part-A. Answer any FIVE questions from Part-B.
PART – A (25 Marks)

1   What is the minimum number of times the body of a do…while loop is executed?

2   What does printf ("%d, %d\n", 5/3, 5 % 3) print to standard output?
3   Give the precedence (order of execution) of logical operators in C.
4   What is the purpose of the keyword void in a function declaration?
5   Given that k is an integer array starting at location 2000, kPtr is a pointer to k and each integer is stores in 4 bytes of memory, what location does kPtr + 3 point to?
6   What are enumeration constants? How do you declare them?
7   What is a scope resolution operator?
8   What is a copy constructor?
9   What is the purpose of a virtual destructor?
10 What is the difference between function overriding and overloading?

PART – B (50 Marks)

11 a) Write a program to compute the roots of a quadratic equation.
    b) Draw the block diagram of a digital computer with various functional units.

12 a) Write a program to read a matrix of size m X n form key board and display the same on screen using functions.
    b) What are different storage classes in C? Explain their usage.

13 a) Write a program to enter strings from user and then sort them in alphabetical order (You can use string standard library functions).
    b) Explain the usage of various preprocessor directives in conditional compilation.

14 a) Write a program to implement complex number class with overloaded operators +, -, *, <<, >>.
    b) What is this pointer? Illustrate different uses of it with suitable examples.

15 a) In what order are class constructors and destructors are called when a derived class object is created and deleted? Illustrate with an example.
    b) What are different stream IO manipulators? Illustrate with examples.

16 a) Write a C/C++ program to count the number of characters in a given text file.
    b) Differentiate between break and continue.

17 Write short notes on :
    a) Machine and assembly languages   b) Recursive functions
    c) Dynamic binding

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