FACULTY OF ENGINEERING & INFORMATICS

B.E. I Year (Common to all branches) Examination, May/June 2012

PROGRAMMING IN C & C++

Time : 3 Hours] [Max. Marks : 75

Answer all questions from Part-A.
Answer any five questions from Part-B.

Part A — (Marks : 25)

1. What is the difference between a compiler and an interpreter?
2. What are symbolic constants in C? How do you declare them?
3. What is the difference between actual parameter and formal parameter?
4. If $P$ is a pointer having address ‘2000’ what are the values of $P$ for the following:
   (i) $P = P + 2$ for int $*P$
   (ii) $P = P - 1$ for float $*p$
   (iii) $P = P + 10$ for char $*P$
5. What is the output of the following program?
   
   ```c
   # define MESS junk
   main ()
   {
     printf ( "MESS" ) ;
   }
   ```
6. What does EOF stand for and what does it indicate?
7. What is the difference between delete and delete[]?
8. For class (Foo {}); what default methods will the compiler generate for you?
9. What is a “pure virtual” meanst function?
10. What happens if an exception is not caught?

[P.T.O.]
Part B — (Marks : 50)

11. (a) Draw the flow chart to find largest number among three numbers.
   (b) Write a program to print the sum of the digits of given natural numbers.

12. (a) Write a program in C to read a line of text and write it out backwards using the recursive function.
   (b) Write a program to sort given list of numbers using selection sort.

13. (a) How are strings stored using points variables? Is it essential to declare length?
   (b) Write a program to count the number of lines in a text file.

14. Write a C++ program to implement data class, whole values are Calendar dates. Equip your class with operating such as is before, adding or subtracting given number of days.

15. (a) In what ads are class constructors and class destructors called when a desired class direct is created and deleted? Illustrate with an example.
   (b) What is the importance of IOS number flaps in formatting IO?

16. Write programme to overlapping >> << operators for reading and writing data to I/o stream.

17. Write short notes on:
   (a) Storage classes
   (b) Templates and static numbers
   (c) Representation of fried and floating point numbers.