ANNA UNIVERSITY COIMBATORE

B.E. / B.TECH. DEGREE EXAMINATIONS – DECEMBER 2009

REGULATIONS : 2007

FOURTH SEMESTER

070230004 – OBJECT ORIENTED PROGRAMMING

(COMMON TO CSE / IT)

Time : 3 Hours Max.Marks : 100

PART – A

(20 x 2 = 40 Marks)

ANSWER ALL QUESTIONS

1. Define the role of data encapsulation with respect to a real-time environment.
2. Differentiate object-based and object-oriented languages.
3. List any two demerits of object-oriented methodology.
4. Categorize the operators that are used in C++.
5. Give a C++ programming example on inline function.
6. Comment on the presence of function overloading in C++.
7. Trace any two advantages of constructors.
8. Define an object that acts an instance of a class.
9. List any two operators that cannot be overloaded in C++.
10. Does C++ support multiple inheritance? Analyze any one of its demerits.
11. Give the generic syntax of a virtual function.
12. Discuss the concept of polymorphism in object oriented languages.
13. Name the four phases involved in exception handling.
14. Define a template in C++.
15. Can an exception be considered as a compile-time error? Why?
16. Locate the use of terminate() function.
17. Define a stream class in C++.

18. Can you open an image file using a C++ program? Discuss.
19. List the necessary functions involved in monitoring I/O status in a C++ file operation.
20. How can you type cast a character to an integer value in C++? Give one example.

PART - B

(5 x 12 = 60 Marks)

ANSWER ANY FIVE QUESTIONS

21. Analyze the following characteristics of object oriented methodology with respect to a C++ program.
    (i) data hiding (ii) persistence (iii) data abstraction.
22. Write a program in C++ that employs copy constructors on initialization.
23. Give a C++ programming example on friend function.
24. Write a C++ program to overload + operator to add two characters.
25. Simulate the academic environment of a college using a series of multilevel classes written in C++.
26. Can we handle exceptions in a derived class? Give a suitable example in C++.
27. Read and append the word "thank you" to the contents of the file "ab.txt" using a C++ program.
28. Analyze the file access options available in C++ and suggest improvements to accommodate multimedia content access.

*****THE END*****