

SATHYABAMA UNIVERSITY

(Established under section 3 of UGC Act, 1956)

Course & Branch: B.E / B. Tech – CSE/MECH/M&P/AERO/IT

Title of the paper: Programming in C++

Semester: II

Max. Marks: 80

Sub.Code: 6C0094

Time: 3 Hours

Date: 20-05-2008

Session: FN

PART – A

(10 x 2 = 20)

Answer All the Questions

1. How the main() of C++ differs from that of C.
2. Define Encapsulation.
3. How an inline function differs from normal functions?
4. What is 'this' pointer? How is it available to member functions of a class?
5. Give the need for template class?
6. Give the differences between function overloading & Operator overloading.
7. Describe the use of 'virtual' function.
8. List out the differences between multiple inheritance and multi level inheritance.
9. Define 'eof'.
10. When will you use the 'throw' and 'catch'?

PART – B

(5 x 12 = 60)

Answer All the Questions

11. Explain in detail the various elements in OOPs.
(or)
12. (a) How OOP language is advantageous than procedural language? Give any 4 OOPs languages. (4)
(b) What is manipulator? Describe any 4 manipulators with suitable examples. (8)
13. (a) Explain the use of constructor and destructor. Compare them. (5)
(b) Write a program to manipulate two complex numbers. (7)
(or)
14. What do you mean by a friend function? Explain its usage with an example. Compare it with the member function of a class?
15. Define a class string with appropriate constructors, destructor and overloaded + and – – operators use them in a main driver program.
(or)
16. Discuss the purpose of function overloading with a suitable example.
17. Create an abstract base class shape with two members base and height, a member function for initialization and a pure virtual function to compute area (). Derive two specific classes Triangle and Rectangle which override the function area (). Use these classes in a main function and display the area of a triangle and a rectangle.
(or)
18. Describe the various types of inheritance with suitable examples.
19. Explain the sequential and random file operations with examples.
(or)
20. What is an exception? Explain exception handling mechanism with an eg.

