Register Number | | | | | | | |

SATHYABAMA UNIVERSITY

(Established under section 3 of UGC Act, 1956)

Course & Branch: B.E/B.Tech – AERO/AUTO/CSE/MECH/M&P/IT
Title of the Paper: Programming in C++ Max. Marks: 80
Sub. Code: 6C0094 (2007/08/09) Time: 3 Hours
Date: 13/12/2010 Session: FN

PART - A (10 X 2 = 20)

Answer ALL the Questions

1. List out the characteristics of object oriented programming.

2. What are the merits and demerits of object oriented methodology?

3. Can the parameter of a copy constructor be passed by value?

4. How does a constructor differ from a normal function?

5. Define a class time with hr, min, sec and create 10 objects of it.

6. Specify the limitation of multiple inheritance.

7. What is pure virtual function?

8. In what order are the class constructor called when derived class object is created?

9. Justify the need for virtual function in C++.

10. Distinguish between synchronous and asynchronous exception.

PART – B (5 x 12 = 60)

Answer All the Questions

11. Explain the basic concept of object oriented programming.

(or)

12. With examples, discuss the various control flow statements in C++.

13. List out the different types of constructors and destructors with examples.

(or)

14. (a) Define Friend class and specify its importance with an example this.
    (b) What is the pointer? When is it used? Give an example.

15. Write a C++ program to swap multiple type values using templates.

(or)

16. Write a C++ program to compare two distances given in feet and inches to check whether one distance is less than the other by overloading < operator.

17. Create an abstract base class 'polygon' with 'base' and 'height' as members, a function for initialization and a pure virtual function to compute area.

(or)

18. (a) What is the use of virtual base class? Explain with an example.
    (b) Explain multiple inheritance with an example.

19. What is an exception? Explain the various constructs used for handling exceptions. Give an example.

(or)

20. Discuss in detail the various file operations and file modes in C++.