**Register Number** 

## SATHYABAMA UNIVERSITY

(Established under section 3 of UGC Act, 1956)

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

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Have