SATHYABAMA UNIVERSITY

(Established under section 3 of UGC Act, 1956)

Course & Branch: B.E/B.Tech – CSE/IT (Dual CSE)
Title of the paper: Object Oriented Programming & Design
Semester: III Max. Marks: 80
Sub.Code: 12306(2002/2003/2004/2005)/511306/6C0045
Time: 3 Hours
Date: 06-05-2008 Session: AN

PART – A (10 x 2 = 20)

Answer All the Questions

1. List the features of building a quality class.

2. What are the various roles of an Object?

3. How do you identify an object? Give an example which can't be considered as an object

4. What do you mean by object oriented model?

5. What is 'this' pointer? How is it available to member functions of a class?

6. With an example give the usage of 'new' and the 'delete' operators.

7. How an inline function differs from normal function?

8. Give the need for template.

9. Mention the purpose of the virtual function.

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 Object Model with suitable example.

(or)

12. What are the various relationships that occur among the classes? Explain them with proper example.

13. Explain the current techniques available for identifying the attributes and the methods of an object with suitable example.

(or)

14. Discuss in detail the traditional techniques of object oriented model.

15. Create a class complex to represent complex number with appropriate constructors and destructor. Also make any one of the function to be a friend to the class created. Use them in a main program.

(or)

16. Explain copy constructor. Write a program to perform A=B where A and B are objects of same class (use copy constructor)

17. Define a class string with appropriate constructors, destructor and overloaded + and = = operators use them in a main driver program.

(or)

18. Discuss the purpose of function overloading with a suitable example.

19. 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)

20. Describe the various types of inheritance with suitable examples.