

# SATHYABAMA UNIVERSITY

(Established under section 3 of UGC Act, 1956)

Course & Branch: B.E /B.Tech – CSE/IT

Title of the paper: Object Oriented Programming & Design

Semester: III

Max. Marks: 80

Sub.Code: 212306/11306/(2003/2004/2005)/6C0045

Time: 3 Hours

Date: 30-11-2007

Session: FN

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## PART – A

(10 x 2 = 20)

Answer All the Questions

1. What is an Object model?
2. Highlight the salient features of UML.
3. What is an attribute?
4. List few applications of 'this' pointer.
5. How is a member function of a class defined?
6. How do we invoke a constructor function?
7. What is operator overloading?
8. What is a conversion function?
9. What does inheritance mean in C++?
10. Why do we need a Virtual function?

## PART – B

(5 x 12 = 60)

Answer All the Questions

11. Discuss in brief about the relationships among classes, quality classes and objects.

(or)

12. Write notes on:

- (a) Conceptual clustering
- (b) Prototype theory analysis

13. Briefly explain about the traditional techniques used in the Object oriented model.

(or)

14. (a) What are the different notations used to identify Method?  
(b) List the approaches to identify service.

15. Define a class string to work as an user defined string type. Write a C++ program to

- (a) Create an uninitialized string using Constructor.
- (b) Create objects with strings
- (c) Concatenates two strings
- (d) Display a desired string object

(or)

16. What are friend functions and friend classes? How are they useful? Explain with examples?

17. What are templates? With syntax and examples, explain the working of class templates and function templates.

(or)

18. Write a C++ program to overload the subscript operator o return the largest element of a collection, the second largest, the third largest, and so on.

19. (a) With examples, explain the relationship between base class and derived class.  
(b) Differentiate between Multilevel and Multiple inheritance.

(or)

20. Write notes on:

- (a) File handling in C++
- (b) Exception handling in C++