

# SATHYABAMA UNIVERSITY

(Established under section 3 of UGC Act,1956)

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

Title of the Paper :Programming in C++

Max. Marks :80

Sub. Code :6C0094

Time : 3 Hours

Date :17/05/2010

Session :FN

## PART - A

(10 x 2 = 20)

Answer ALL the Questions

1. Distinguish between data abstraction and data encapsulation.
2. Explain iostream.h.
3. Explain inline functions.
4. Explain new, delete operators.
5. Why is it necessary to overload an operator?
6. Explain Class Template.
7. When do we use the protected visibility specific to a class member?
8. What is virtual base class?
9. Explain under what circumstances the throw would be used.
10. Explain bad().

## PART – B

(5 x 12 = 60)

Answer All the Questions

11. (a) Describe the major parts of a C++. (4)  
(b) Write a program that will ask for a temperature Fahrenheit and display in Celsius. (8)

(or)

12. (a) Write a program to print the following output using for loop.

```
1
2 2
3 3 3
4 4 4 4
```

- (b) Compare new operator and malloc function with example.

13. (a) Explain briefly Parameterized Constructor. (5)  
(b) Write a program using friend function to exchange the private values of two classes. (7)  
(or)
14. (a) Explain Copy Constructor with example. (8)  
(b) Explain Class member Accessibility. (4)
15. (a) Write a Program to show how the unary minus operator is overloaded. (8)  
(b) Which operators cannot to be overloaded? (4)  
(or)
16. (a) Define a class string. Write a program to overload == operator and compare two strings. (8)  
(b) What are the rules for overloading operators? (4)
17. (a) Write a program to implement multilevel and multiple inheritance. (9)  
(b) What are the various Functions that can have access to these members? (3)  
(or)
18. (a) Write how constructors are implemented when the classes are inherited. (8)  
(b) What is Containership? How does it differ from inheritance? (4)
19. (a) Write a program that illustrates the application of multiple catch statements. (8)  
(b) Explain Catch(...) (4)  
(or)
20. (a) Write a program to demonstrate how certain exception types are not allowed to be throwing. (7)  
(b) Explain briefly the concept of re throwing an exception. (5)