SATHYABAMA UNIVERSITY

(Established under section 3 of UGC Act, 1956)

Course & Branch: B.E/B.Tech - CSE/IT/M&P/MECH/AERO/AUTO
Title of the paper: Programming in C++
Semester: II — Max.Marks: 80
Sub.Code: 6C0094(2007-2008) — Time: 3 Hours
Date: 15-05-2009 — Session: FN

PART - A (10 X 2 = 20)

Answer ALL the Questions

1. Write the structure of a C++ program?
2. State any three differences between structured oriented programming and object oriented programming.
3. What are inline functions?
4. State the use of "this" pointer with suitable syntax.
5. What are class templates?
6. What are function templates?
7. What are virtual functions?
8. What is derived class and write down the general form of derived class declaration.
9. What is Exception Handling?
10. State the functions for the manipulation of file pointers.

PART – B (5 x 10 = 50)

Answer All the Questions

11. (a) Explain classes, Objects and Abstraction with suitable examples? (8)
    (b) List out the benefits of OOPS? (4)

(or)

12. (a) Define Encapsulation and state its property. (3)
(b) Explain Polymorphism with suitable examples. (4)
(c) Explain the features of Object Oriented Programming. (5)

13. (a) Defined friend function. What are the characteristics of friend functions and explain it with an example program.
(b) Define constructor and explain its declaration with suitable example.

(or)

14. Explain the following with suitable examples:
(a) Data hiding
(b) Constructor overloading
(c) Copy constructor

15. (a) Explain function overloading with an example. (4)
(b) Write a program to display the volume of cube using function overloading. (8)

(or)

16. Define Operator Overloading. Explain unary and binary Operator Overloading with suitable examples.

17. What is inheritance? Explain different forms of inheritance with suitable f Figures.

(or)

18. Explain multiple inheritance and multilevel inheritance in detail.

19. (a) Explain different file mode parameters. (4)
(b) Explain with suitable example for opening and closing a file. (4)
(c) Explain error handling during file manipulation. (4)

(or)

20. (a) What is exception handling? Explain exception handling mechanism in detail.
(b) Write short notes on catching exceptions and throwing exception mechanisms.