2006 VISVESVARAYA TECHNOLOGICAL UNIVERSITY
B.E COMPUTER SCIENCE ENGINEERING
C++

TIME : 3 HOUR
MARK : 80

ANSWER ANY FIVE QUESTION
ALL QUESTIO N CARRY EQUAL MARK

1 a.Define object oriented programming.Differentiate procedural structural and object oriented programing.

b.Explain the different characteristic of oop?

c.Write a program to illustrate the use of enumerated constant?

2 a.Discuss the following with an example.
i.funtion protoptype

ii.recursive function

iii actual and formal parameters

iv.inline function

b.Write a program to find nCr using recursion.

3.a. Define class and object.Write a class rectangle containing two data items length and breadth and four functionssetdata(),getdata(),displaydata(),area() to set the length and breadth to get the user inputs.to display and to find the area of the rectangle respectively.also write a main program wcich declares the objects and uses the member functions of the class.

b.What do you mean by function overloading?Explain with an example.

c.Write a note on new and delete operations.

4 a.Write a c++ program to add and multiply two complex numbers with operator overloading.

b.Define function templates?discuss the needs of function templates with suitable examples.

5 a.What is a friend function?write a program that has a friend function to compute GCD and LCM of two numbers.

b.Create a class string and implement the following: he results are to be displayed by overloading operator after every operation.use constructors in the program.

STRING s1='INFOSYS'

STRING s1 ='WIPRO'

STRING s3 =s1+s2

6a.What is INHERITANCE?bring out the concept of various types of inheritances.

b.Explain virtual function?

c.Write a note on visibility of member functions based on private and protected derivations with an example each.

7a.What are IOstreams in c++?give the stream class hierarely.

b.Explain the use of abstract classes.

c.Write a c++ program to read a text file and display the contents,number of lines,number of words,number of alphabets on screen.

8 a.Write short notes on

1.friend function

2.'this' pointer

3.static members

4.nested classes