Enrollment No: _____   **Exam Seat No:_____**

C.U.SHAH UNIVERSITY
Summer Examination-2017

Subject Name : Object Oriented Programming

Subject Code : 4TE02OOP1   **Branch: B.Tech (All)**

Semester : 2   **Date : 12/05/2017**   **Time : 02:00 To 05:00**   **Marks : 70**

Instructions:
   (1) Use of Programmable calculator & any other electronic instrument is prohibited.
   (2) Instructions written on main answer book are strictly to be obeyed.
   (3) Draw neat diagrams and figures (if necessary) at right places.
   (4) Assume suitable data if needed.

Q-1   **Attempt the following questions:**   **(14)**
   a)   Explain eof().
   b)   What is pointer?
   c)   Define abstract class.
   d)   What is the functionality of tellg()?
   e)   What is Null Pointer?
   f)   Define encapsulation.
   g)   *cout* is a/an _____ .
         1.operator
         2.function
         3.Object
         4.Macro
   h)   Which of the following is the correct class of the object *cout*?
         1.*iostream*
         2.*istream*
         3.*ostream*
         4.*ifstream*
   i)   Which of the following approach is adapted by C++?
         1.Top-down
         2.Bottom-up
         3.Right-left
         4.Left-right
   j)   Which of the following is correct about class and structure?
         1 class can have member functions while structure cannot.
         2 class data members are public by default while that of structure are private.
         3 Pointer to structure or classes cannot be declared.
         4 class data members are private by default while that of structure are public by default.
   k)   Which of the following problem causes an exception?

1.Missing semicolon in statement in *main()*.
2.A problem in calling function.
3.A syntax error.
4.A run-time error.
l) Which of the following type of class allows only one object of it to be created?
1 Virtual class
2 Abstract class
3 Singleton class
4 Friend class
m) Define polymorphism.
n) What is the application of the scope resolution operator :: in c++?

Attempt any four questions from Q-2 to Q-8

Q-2	**Attempt all questions**	
(a)	What is constructor? Explain copy constructor with an example.	**(07)**
(b)	What is function overloading? Explain with an example.	**(07)**
Q-3	**Attempt all questions**	
(a)	What is inline function? Explain with an example.	**(07)**
(b)	Explain destructors in detail with example.	**(07)**
Q-4	**Attempt all questions**	
(a)	Explain operator overloading with an example.	**(07)**
(b)	Explain 'Basic to class' and 'class to basic' type conversion with an example.	**(07)**
Q-5	**Attempt all questions**	
(a)	Explain the concept of virtual base class.	**(05)**
(b)	Explain 'this' pointer with example.	**(05)**
(c)	Explain pure virtual function in brief.	**(04)**
Q-6	**Attempt all questions**	
(a)	What is inheritance? Explain various types of inheritance with example.	**(10)**
(b)	Write a program to swap the values of two integer variables using call by reference.	**(04)**
Q-7	**Attempt all questions**	
(a)	Explain friend function with an example.	**(07)**
(b)	What are command line arguments? Explain with an example.	**(07)**
Q-8	**Attempt all questions**	
(a)	Explain exception handling in C++ with an example.	**(07)**
(b)	What is template? Explain class templates with multiple parameters.	**(07)**