

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.
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**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)

