DHARMSINH DESAI UNIVERSITY, NADIAD
FACULTY OF TECHNOLOGY
B.TECH. SEMESTER III [IT]
SUBJECT: (IT-303) OBJECT ORIENTED PROGRAMMING

Examination	**: Third Sessional**	**Seat No.**	**: _____**
Date	**: 09/10/2013**	**Day**	**: Wednesday**
Time	**: 09:30 to 10:45**	**Max. Marks**	**: 36**

INSTRUCTIONS:
1. Figures to the right indicate maximum marks for that question.
2. The symbols used carry their usual meanings.
3. Assume suitable data, if required & mention them clearly.
4. Draw neat sketches wherever necessary.

Q.1 Answer the Following : **[12]**

(A) What is the difference between intarr[3] and *(intarr+3)? [2]

(B) Explain Function : seekp(), tellg() [2]

(C) Explain this pointer. [2]

(D) Define and Discuss Pure Virtual Function. [2]

(E) Define: late binding. [2]

(F) State true or false with justification: [2]

1) A pointer to a base class can point to objects of a derived class.
2) The user must always define the operation of the copy constructor.

Q.2 Answer the following: **[12]**

(A) Define the terms: abstract class and virtual base class. [2]

(B) Explain new and delete operators. What are the advantages of using new operator? [4]

(C) Define Friend Function. Create two classes DIST1 and DIST2 which store the value of distances. DIST1 stores distances in meters and centimeters and DIST2 in feet and inches. Write a program that can read values for the class objects and add one object of DIST1 with another object of DIST2. Use a friend function to carry out the addition operation. The object stores the results may be a DIST1 object or DIST2 object. The display should be in the format of feet and inches or meters and centimeters depending on the object on display. [6]

1 Feet = 0.3048 Meter 1Meter = 3.28 Feet
1 Inch = 2.54 Centimeter 1 Centimeter = 0.3937 Inch

OR

(C) Define class “distance” with data members feet and inches and appropriate member functions to support the following main() function: [6]

```
void main()
{ distance d1,d2;   cin>>d1>>d2;
  distance d3(12,5.24);
  cout<<d1<<d2<<d3;    }
```

Q.3 Answer the following: **[12]**

(A) Implement linked list with insertion and deletion operations on it. [6]

(B) Write a program that reads a text file and creates another file that is identical except that every character is in upper case. [6]

OR

Q.3 Answer the following: **[12]**

(A) Define an array of pointers to strings representing the days of the week. Provide functions to sort the strings into alphabetical order. Sort the pointers to the strings, not the actual strings. [6]

(B) Write a program that reads a text file containing objects of class EMPLOYEE and displays total number of employees in a file as well as the information of particular employee entered by user. [6]
