

- 3** (a) Write short notes : (any **two**) **6**
- (i) Friend function
 - (ii) Type conversion
 - (iii) Function prototyping.
- (b) Differentiate the following : (any **two**) **4**
- (i) Call by reference and Call by value
 - (ii) Protected visibility mode and Public visibility mode.
 - (iii) Compile time binding and Runtime binding.
- 4** Attempt any **two** : **10**
- (i) A file contains a list of telephone numbers in the following form :
- ```
Tina 12345
Ena 67891
Deeka 23456

```
- The names contain only one word and the names and telephone numbers are separated by white spaces. Write a program to read the file and output the list in two columns. The names should be left-justified and the numbers right-justified.
- (ii) Define class time that has hours and minutes as data members. Overload + Operation that gives sum of two time objects and > = operator to compare two time objects.
- (iii) Assume that a bank maintains two kinds of accounts for customers one called as savings account and the other as current account. Create a class account that store customer name, account number and type of account. From this derive the classes cur-account and sar-account to make them more specific to their requirements. Include necessary member function in order to achieve the following tasks.
- (a) Accept deposit from customer and update the balance.
  - (b) Display the balance.

- 5** Do as directed : (any **five**) **10**
- (i) Features of *OOP* (Object Oriented Programming)
  - (ii) Explain stages of Object Modelling Technique
  - (iii) Explain Link attributes with diagram
  - (iv) Differentiate instance diagram and class diagram
  - (v) Differentiate Aggregation and Generalization.
  - (vi) Differentiate multiple inheritance and multilevel inheritance.
  - (vii) Explain Role Names with diagram.
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