SET - 5

BACHELOR IN COMPUTER APPLICATIONS (BCA Revised)
Term-End Practical Examination
June, 2011

00664

CS-72P : C++ AND OBJECT ORIENTED PROGRAMMING

Time allowed : 2 hours   *Maximum Marks : 100*
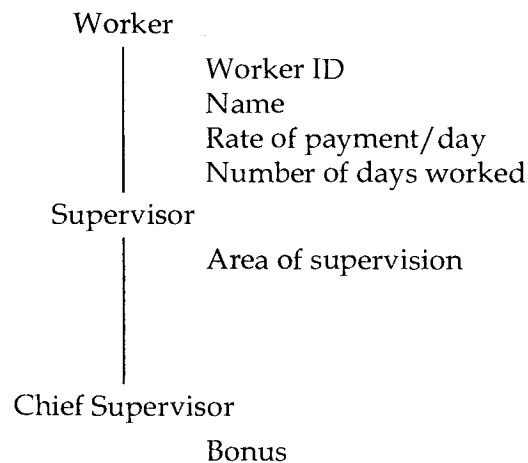   *(Weightage : 15%)*

General Instructions :
(i)   There are two **compulsory** questions in this paper of **40** marks each. Rest **20** marks are for the **viva-voce**.
(ii) You must write the appropriate main( ) function and test your programs.
(iii) Write/Print the programs, input and results on your answer-script.
(iv) Make and state suitable assumptions, if any.

1. Design and implement a class "Mark-list" that stores the marks of 10 students in an **40** array. The class has two data members - subject, array of student marks. Create three such objects one for Physics, second for Chemistry and the third for Mathematics. The class should have functions to find the topper in a subject and to find the average class marks in a subject. Demonstrate the use of these functions.

2. Consider the following class hierarchy along with suggested data members of the **40** classes :

> Worker
> > Worker ID
> > Name
> > Rate of payment/day
> > Number of days worked
>
> Supervisor
> > Area of supervision
>
> Chief Supervisor
> > Bonus

A supervisor have many workers working under him/her. The supervisor is given a specific area for supervision like North area, South area etc. The chief supervisor is given a special bonus. Design and implement the classes in the hierarchy given above using C++. You may add more data members in the classes. You must include at least one constructor in each class. Also implement a function PrintDetails( ) in all the classes. This function prints all the details of object of that class. You should demonstrate polymorphism using this PrintDetails( ) function and appropriate main( ) function.