PANIPAT INSTITUTE OF ENGINEERING & TECHNOLOGY, SAMALKHA
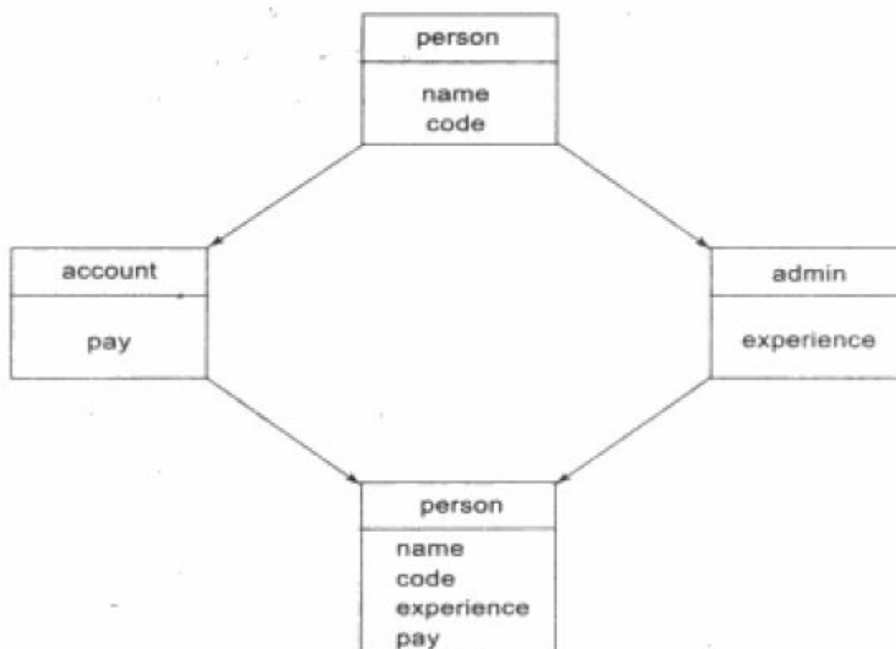## DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
B.TECH (III SEM) (SECTION A, B, C)
SESSIONAL –I (November, 2020)
Object Oriented Programming (PC-CS203A)

M.M: 40   **Duration: 2.5 Hrs**

NOTE: Q-1 is compulsory. Attempt any one question from Q-2 and Q-3

Q-1 **(a)** Explain basic concepts of OOP?   **(5) (CO1)**

(b) What is static data member? Explain its use with suitable example.   **(5) (CO1)**

(c) What is a friend function? What are the merits and demerits of friend function?   **(5) (CO2)**

(d) What is the order of execution of constructors and destructors in C++? Illustrate with the help of example program.   **(5) (CO3)**

Q-2 **(a)** What does **this** pointer point to? Write a program to implement the same.   **(10) (CO2)**

(b) Consider a class network as shown in figure below. The class master derives information from both account and admin classes which in turn derive information from the class person. Define all the four classes and write a program to create, update and display the information contained in master objects.   **(10) (CO3)**

Q-3 **(a)** Explain public, private and protected access specifiers and show their visibility when they are inherited as public, private and protected.   **(10) (CO2)**

(b) What is the ambiguity problem in case of multiple inheritance? How it can be removed? Explain with the help of suitable example.   **(10) (CO3)**