CSE 110
Introduction to class

Time: 40 minutes **Marks: 20**

1. Define a class ***Matrix*** with two private attributes int ***nrow*** and int ***ncol*** which represents the number or rows and number of columns of the matrix and another private attribute double** ***2Darray*** that actually holds the matrix entries.
2. Write down one constructor for ***Matrix*** class which takes ***nrow*** and ***ncol*** as parameter and dynamically allocate memory for ***2Darray*** and initializes all the values to zero. Free the allocated memory within destructor.
3. Define a member function ***void setValues(double[][] mat, int m, int n)*** which sets the value of ***nrow*** and ***ncol*** and dynamically allocate memory for ***2Darray*** and initializes all the values from ***mat***.
4. Define a member function ***void print()*** that will print the ***Matrix*** in standard form. For example,

   1 ... 0
   ⋮ ⋱ ⋮
   0 ... 1
5. Define a member function ***Matrix add (Matrix a)*** that will return another ***Matrix*** that is sum of ***Matrix* a** and the caller ***Matrix***.
6. Write a ***main()*** function to demonstrate the functionality implemented in questions 1-5.