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| **National University of Computer and Emerging Sciences, Lahore Campus** | | | | |
| final design | **Course:** | **Object Oriented Programming** | **Course Code:** | **CS 217** |
| **Program:** | **BS(Computer Science)** | **Semester:** | **Spring 2019** |
| **Duration:** | **15 Minutes** | **Total Marks:** | **5** |
| **Paper Date:** | ***05/04/2019*** | **Page(s):** | **1** |
| **Section:** | **F** | **Section:** |  |
| **Exam:** | **Quiz 3** | **Roll No:** |  |
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Consider the matrix class as given in assignment, the data member are as follow

int rows;

int columns;

int \*\* m\_matrix;

Overload operator (), such that the following statement work

matrix m1(2,2); //a 2x2 matrix of all zeros

cout<<m1(0,1);// print element at index 0,1 where 0 is the row# and 1 is the column number

m1(1,0)=20;//change the element at index 1,0 to 20, where 1 is row # and 1 is colum number

cout<<m1;// will print 0 0

// 20 0

Or you can also throw an invalid argument exception in else

int & matrix::operator()(int \_r, int \_c)

{

if(\_r>=0 & \_r<this->r & \_c>0 & \_c<this->c)

return \*this->m[r][c];

else

{

throw std::invalid\_argument( "received invalid argumments" );

}

}

Note that to use std::invalid\_argument you need to include #include <stdexcept> in your file