**CHAPTER 3**

|  |  |
| --- | --- |
| **Objective :** | Manipulate a matrix: Do the following operations on matrix G created above in (4).  • Delete the last row and last column of the matrix.  • Extract the ﬁrst 4×4 submatrix from G.  • Repalce G(5,5) with 4.  • What do you get if you type G(13) and hit return? Can you explain how MATLAB got that answer?  • What happens if you type G(12,1) = 1 and hit return? |
| **MATLAB**  **Code:** | A = [2 6 ;3 9];  B = [1 2;3 4];  C = [-5 5;5 3];    G = [A zeros(2,2) zeros(2,2) ;zeros(2,2) B zeros(2,2) ;zeros(2,2) zeros(2,2) C];  H = G([1 2 3 4],[1 2 3 4])      G = [A zeros(2,2) zeros(2,2) ;zeros(2,2) B zeros(2,2) ;zeros(2,2) zeros(2,2) C]  G(5,5) = 4    G(13)    G(12,1)=1 |
| **Output:** | H =  2 6 0 0  3 9 0 0  0 0 1 2  0 0 3 4  G =  2 6 0 0 0 0  3 9 0 0 0 0  0 0 1 2 0 0  0 0 3 4 0 0  0 0 0 0 4 5  0 0 0 0 5 3  G\_13 = 0  G =    2 6 0 0 0 0  3 9 0 0 0 0  0 0 1 2 0 0  0 0 3 4 0 0  0 0 0 0 4 5  0 0 0 0 5 3  0 0 0 0 0 0  0 0 0 0 0 0  0 0 0 0 0 0  0 0 0 0 0 0  0 0 0 0 0 0  1 0 0 0 0 0 |