Date: 28 August, 2020

CLASS ASSIGNMENT – 2

Instructions:

- **The programs should be in a single doc file and the script file program can be copy and paste in it followed by addition of the output window. You can use the direct "printscreen" option.**

- **The submission deadline for this assignment is 02 September, 2020 and the evaluation will not done after the deadline.**

1. Define the matrices T = [3 4; 1 8; -4 3] and A = [diag(-1:2:3) T; -4 4 1 2 1]. Perform the following operations on the matrix A:

a) extract a vector consisting of the 2nd and 4th elements of the 3rd row
b) find the minimum of the 3rd column
c) find the maximum of the 2nd row
d) compute the sum of the 2nd column
e) compute the mean of the 1st and 4th rows
f) extract the submatrix consisting of the 1st and 3rd rows and all columns
g) extract the submatrix consisting of the 1st and 2nd rows and the 3rd, 4th and 5th columns
h) compute the total sum of the 1st and 2nd rows
i) add 3 to all elements of the 2nd and 3rd columns

2. Given the vectors x = [1 3 7], y = [2 4 2] and the matrices A = [3 1 6; 5 2 7] and B = [1 4; 7 8; 2 2], determine which of the following statements can be correctly executed (and if not, try to understand why) and provide the result:

a) x + y
b) x + A
c) A − [x' y']
d) [x; y] + A
e) [x; y']
f) [x; y]
g) A − 3
h) A + B
i) B' + A
j) B*A
k) A'. * B
l) 2 * B
m) 2. * B
n) 2/A
o) ones(1, 3) * A

3. Let A = [2 7 9 7; 3 1 5 6; 8 1 2 5]. Explain the results or perform the following commands:

a) A’
b) A(1, :’
c) A(:, [14])
d) A([23], [31])
e) A(:)
f) [A; A(1 : 2, :)]
g) sum (A)
h) sum (A’)
i) mean (A)
j) mean (A")
k) sum (A, 2)
l) min (A)
m) max (A’)
n) min (A(:, 4))
o) max (min(A))

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