Department of Electrical Engineering
Program: B.E. (Electrical)
Semester – Summer 2016

MS-121 Linear Algebra

Assignment – 3   **Due Date: 18/08/2016**
Marks: 15   **Handout Date: 10/08/2016**

Question # 1:

Find the Euclidean distance between **u** and **v**:
   i. $u = (0, -2, -1, 1), v = (-3, 2, 4, 4)$
   ii. $u = (2, -1), v = (-2, 2)$
   iii. $u = (1, 2, -3, 0), v = (5, 1, 2, -2)$

Question # 2:

Find the cosine of the angle θ between **u** and **w**:
   i. $u = (2, 3), w = (5, -7)$
   ii. $u = (1, -5, 4), w = (3, 3, 3)$

Question # 3:

Find the vector component of **x** along **a**:
   i. $x = (6, 5, 4), a = (1, -1, 3)$
   ii. $x = (3, -2, 6), a = (1, 2, -7)$

Good Luck