

East West University

Department of Mathematics and Physical Sciences (MPS)

Course Title: Linear Algebra and Complex Variables, Course Code: MAT 205

Time: 30 Minutes

Quiz 1

Marks: 10

1. Find the Hermitian matrix of [4]

$$A = \begin{bmatrix} 2+5i & i & 3-5i \\ 1+4i & 6+7i & 3-2i \\ 4 & 1+8i & 2+4i \end{bmatrix}$$

2. Determine the values of a such that the system in unknowns x , y and z has (i) a unique solution, (ii) no solution, (iii) more than one solution: [6]

$$ax + y + z = 1$$

$$x + ay + z = 1$$

$$x + y + az = 1$$